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First Copy

*A National Newspaper for Every Branch of the Industry*

# Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

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PUBLISHERS
SEP 11 1930
DETROIT

# AUGUST PRODUCTION PUT AT 240,100

## Gardner Offers Improved Straight Eight for 1931 Priced From $1,795 to $1,895

### Line Known at "148" Includes Five Bodies On 125-Inch Wheel Base, With 100 Horse Power Engines

ST. LOUIS, Mo., Sept. 4.—The Gardner Motor Company, Inc., announces an improved line of straight eights for 1931, and in so doing now enters its seventh consecutive year as a manufacturer of straight eights.

The line known as model "148" is comprised of five body styles in open and closed models, including the roadster, phaeton, brougham, sedan and sport sedan, in more than twenty-five color combinations. The prices range from $1,795 for the roadster to $1,895 for the sedan.

Closed models are upholstered in Chase mohair; seat backs and cushions are pleated, with form-fitting springs and real hair padding; overstuffed upholstery is used throughout. The roadster is trimmed in leather. Window openings of closed models are encased in one-piece frames of American walnut finish; the instrument board and deflector panel are also finished in American walnut. The instrument panel has an entirely new feature—a bronze plate or "symbol of up-to-date transportation" which identifies the car as a 1931 model.

A new chrome-plated grill adorns the front end of the 1931 Gardners, a feture which enhances their appearance and also serves a utility purpose as a protector for the radiator. A three-inch molding to contrast the body colors is utilized in the new models. This molding runs entirely around the body and in a sweeping curve to the center of the cowl, where it terminates in a pointed design at the cowl band.

The interiors of the inclosed

(Continued on Page 7)

## NEW CAR REGISTRATIONS IN WAYNE COUNTY DROP

**Detroit, Sept. 4.—August registrations of new passenger cars in Wayne county totaled 3,209, compared with 5,926 in July and 9,095 in August, 1929. Of the total registrations for August, Ford accounted for 1,668 new passenger cars, or 51.9 per cent., against 3,738, or 41 per cent. in August, 1929.**

## AJAX AND M'CLAREN CENTER ALL ACTIVITY AT CHARLOTTE PLANT

**Charlotte, N. C., Sept. 4.—Completion of arrangements making Charlotte executive as well as manufacturing center of the $15,000,000 annual business of the Ajax and McClaren Rubber companies has been announced by officials of the McClaren Rubber Company here.**

The company has leased offices on West Trade Street over the Union Bus Terminal and will remove its executive department from Racine, Wis., to this location, transacting all business here beginning October 1. Since June 1 the entire production has been handled in the Charlotte plant, while business continued to be carried on in executive offices in Racine.

Charles G. Miller, who has been in charge of the factory for the past six years, stated that the plant is running now at full capacity and is making 1,700 tires each day. It employs 450 men, working three shifts in some departments and as many as two in all departments.

## N. A. C. C. PLACES 8 MONTHS' PRODUCTION AT 2,842,884

### New Low Mark for Year Reached as Manufacturers Continue to Hold Schedules to Actual Demand

NEW YORK, Sept. 4.—Production of motor vehicles in the United States and Canada in August approximated 240,100, according to the regular monthly estimate of the National Automobile Chamber of Commerce, made public today. This figure compares with an output of 272,551 in June, off 12 per cent., and with 512,842 in the corresponding month of last year, a decline of 53 per cent.

The N. A. C. C. announced that the August production was 41 per cent. below the average August output for the five years immediately preceding 1930. It set a new low mark for 1930.

**For the first eight months of the current year the production of motor vehicles amounted to 2,842,884, as compared with 4,444,947 in the corresponding period of last year, a falling off of 36 per cent.. The eight months' total for this year is 15 per cent. below the average for the corresponding period of the five years from 1925 to 1929, inclusive, according to the N. A. C. C. statement.**

The low August manufacture reflects the continued efforts of the producers to avoid overproduction, and the low figure resulted in a further reduction in factory and dealer stocks of new cars on hand.

Following is the month by month production for the United States and Canada for the first eight months of 1930, as compared with the corresponding period of last year:—

| | 1930 | 1929 |
|---|---|---|
| January | 285,762 | 422,538 |
| February | 362,488 | 497,705 |
| March | 422,043 | 626,076 |
| April | 467,295 | 663,811 |
| May | 442,078 | 636,250 |
| June | 350,567 | 567,424 |
| July | 272,551 | 518,301 |
| August | *240,100 | 512,842 |
| Totals | 2,842,884 | 4,444,947 |

*Estimate.

## SERIES OF TRAFFIC SESSIONS IN FALL

**WASHINGTON, Sept. 4.—Consideration and study of the problems of automobile and airplane transportation from both a local and national standpoint, and the orderly and systematic development and control of these facilities, will be given this fall in a series of eight regional conferences held under the auspices of the Chamber of Commerce of the United States.**

Officials and members of the national conference on street and highway safety will give assistance in the discussion of matters relating to vehicle legislation and regulation and other factors having to do with safety and accident prevention and the development of facilities for traffic on the streets and public highways.

The first of the conferences will be held in Philadelphia on September 23 and 24, and the second one at Boston on September 25 and 26. Preparations and arrangements for the conferences are being made through the Philadelphia Chamber of Commerce and the Boston Chamber of Commerce in co-operation with the headquarters of the

(Continued on Page 2)

## NEW CAR SALES ACCOUNT FOR 98.7% OF TOTAL PRODUCTION

NEW YORK, Sept. 4.—Domestic and export sales of new passenger cars by United States manufacturers in the first seven months of the current year accounted for 98.7 per cent. of their entire output in that period, leaving an apparent surplus of only 1.3 per cent. This compares with domestic and export sales of only 90.3 per cent. of the total output in the corresponding period of last year, when the surplus was 9.7 per cent.

This illustrates in a convincing fashion the ability of the industry to judge the demand and avoid overproduction. The manufactuers at the beginning of the current year announced they would hold their output this year to the actual retail and export demand and the production and sales statistics show that they have done so.

**The production of passenger cars in the United States in the first seven months of the year amounted to 2,117,465. The domestic registrations for that period amounted to 1,907,707, and the export shipments from this country amounted to 182,387, with July estimated. The combined domestic and export sales**

(Continued on Page 2)

## Car Sales in New York In July 45% Over June

**NEW YORK, Sept. 4.—Retail sales of new passenger cars in the state of New York in July showed a sharp increase over the preceding month, according to complete registration returns received by Automotive Daily News. Sales in some cases were at 1929 levels.**

Registrations in July amounted to 35,184, as compared with 24,203 in the preceding month, a gain of 45 per cent., and comparing with 45,155 in July, 1929, a loss of 22 per cent. This compared with a decline of 2.6 per cent. by the entire country in July from June and a loss of 41 per cent. from a year ago.

For the first seven months of the current year retail sales of new cars in New York were 194,413, as compared with 234,294 in the corresponding period of last year, a decline of 17 per cent. This compared with a loss of 26 per cent. by the country as a whole in new car sales in the seven months' period.

Retail sales of new Ford cars in July of this year exceeded the corresponding month of last year by 13,741 to 11,316, Chevrolet sales were off from a year ago, but were substantially higher than in the preceding month.

Buick registrations in July showed a large gain over June but were below July, 1929. Packard sales in July were virtually the same as a year ago, as were those of Cadillac.

**Ford was the only car among the big sellers to show a gain in sales in the first seven months of this year over the corresponding period of last year. The registrations of this car totaled 69,940, as compared with 50,667 in the first seven months of 1929, a gain of about 38 per cent.**

Chevrolet and Buick sales were only slightly below last year, while other cars, with sales comparing favorably with a year ago, were Chrysler, Studebaker, Oldsmobile, Plymouth, Hupmobile, Oakland, Pierce-Arrow and Marmon, the last

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## Atlanta Car Sales Swing Upward as Vacations End

**Atlanta, Ga.,** Sept. 4 (UTPS).—Automobile sales in Atlanta have shown definite improvement with the passing of Labor Day, and dealers expect September and October to equal if not exceed last year's figures for the two months.

During the past ten days, says B. V. Stodghill, manager for the John Smith Chevrolet Company, there has been a definite improvement in Chevrolet sales and we are looking forward to improved conditions during September and October.

A good business for fall is predicted by Frank North, manager of the Atlanta Reo Company. Reo stocks have been reduced to a minimum in anticipation of new models and from the inquiries already received, Mr. North anticipates an excellent business for Ocober.

Increasing interest in the new Austin bantam is reported by the Jack Phinizy Company, local dealer, who reports that his car has got well past the curiosity and advertising stage in the South and is beginning to be demanded on its own merits.

Higher priced cars are also showing well as the result of the increased interest evidenced in the automobile business.

There seems to be a definitely increased demand for cars, states Mr. Crowley, manager of the Atlanta Packard Company, and we believe that despite the fact the business was worse this year, generally speaking, than in 1929, our sales will be fully equal to those made in the fall of last year.

"We are," says Mr. Crowley, "going to get our share of the busi-

(Continued on Page 3)

# Car Sales in New York In July 45% Over June

(Continued from Page 1)

were 2,090,094, this amounting to named of which actually set up a gain over last year.

Following are the new car registrations in the state of New York for the first seven months of this year, as compared with the corresponding period of last year:

| | 1930 | 1929 |
|---|---|---|
| January | 11.497 | 15.409 |
| February | 16.680 | 19,315 |
| March | 28.541 | 36.879 |
| April | 38.251 | 45,102 |
| May | 40.057 | 41.698 |
| June | 24.203 | 30.836 |
| July | 35.184 | 45,155 |
| Totals | 194,413 | 234,394 |

Following are the new car registrations in New York, as compared with the corresponding month of last year and the month of June, 1930:

| | July, 1930. | July, 1929. | June, 1930. |
|---|---|---|---|
| Ford | 13,741 | 11,316 | 10,381 |
| Chevrolet | 5,590 | 7,172 | 3,920 |
| Buick | 1,935 | 2,356 | 957 |
| Nash | 1,199 | 2,180 | 684 |
| Plymouth | 1,072 | 1,231 | 649 |
| Studebaker | 1,069 | 1,413 | 581 |
| Chrysler | 1,060 | 1,244 | 798 |
| Oldsmobile | 941 | 1,466 | 524 |
| Essex | 849 | 2,335 | 542 |
| Pontiac | 824 | 2,046 | 498 |
| Dodge | 736 | 1,271 | 452 |
| Packard | 736 | 778 | 641 |
| De Soto | 571 | 924 | 315 |
| Graham | 538 | 1,042 | 367 |
| Hupmobile | 477 | 703 | 263 |
| Willys | 470 | * | 301 |
| Hudson | 461 | 1,025 | 278 |
| Willys-Knight | 363 | 681 | 185 |
| Auburn | 326 | 594 | 267 |
| Oakland | 304 | 451 | 197 |
| Durant | 248 | 499 | 116 |
| Cadillac | 241 | 261 | 201 |
| Marmon | 200 | 453 | 124 |
| Franklin | 141 | 240 | 101 |
| Austin | 137 | ** | 1 |
| La Salle | 135 | 308 | 130 |
| Pierce-Arrow | 130 | 233 | 103 |
| Reo | 129 | 237 | 66 |
| Lincoln | 97 | 138 | 69 |
| Peerless | 57 | 164 | 31 |
| Viking | 54 | 162 | 25 |
| Cord | 29 | ** | 20 |
| Jordan | 26 | 40 | 36 |
| Gardner | 25 | 34 | 16 |
| Stutz | 17 | 91 | 9 |
| Windsor | 10 | 27 | 5 |
| Miscellaneous | 20 | 109 | 19 |
| Totals | 35,184 | 45,156 | 24,203 |

*Then the Whippet Six. **Not on the market.

Folowing are the new car registrations in New York for the first seven months of this year by leading makes of cars, as compared with the corresponding period of last year:—

| | 1930 | 1929 |
|---|---|---|
| Ford | 69,940 | 50,667 |
| Chevrolet | 34,754 | 39,616 |
| Buick | 10,290 | 11,045 |
| Essex | 6,139 | 14,583 |
| Chrysler | 5,955 | 7,360 |
| Nash | 5,877 | 1 ,268 |
| Studebaker | 5,305 | 7,267 |
| Oldsmobile | 5,301 | 7,347 |
| Pontiac | 5,137 | 10,576 |
| Dodge | 4,392 | 6,703 |
| Plymouth | 3,849 | 5,065 |
| Packard | 3,700 | 5,319 |
| Hupmobile | 3,053 | 3,887 |
| Hudson | 3,037 | 5,305 |
| De Soto | 2,990 | 4,354 |
| Willys | 2,875 | * |
| Graham | 2,820 | 4,746 |
| Oakland | 2,044 | 2,505 |
| Willys-Knight | 1,810 | 4,091 |
| Cadillac | 1,506 | 2,140 |
| La Salle | 1,325 | 2,266 |
| Auburn | 1,314 | 2,601 |
| Marmon | 1,291 | 1,150 |
| Durant | 1,247 | 2,000 |
| Whippet | 1,172 | 12,022 |
| Franklin | 1,069 | 1,412 |
| Pierce-Arrow | 968 | 1,018 |
| Reo | 865 | 1,297 |
| Lincoln | 639 | 809 |
| Peerless | 420 | 799 |

*Then the Whippet Six.

### IRA S. GROVES TO DIRECT FORD LONG BEACH PLANT

**Long Beach, Cal.,** Sept. 4.—Ira S. Groves, present manager of the San Francisco branch of the Ford Motor Company, has arrived here to assume the duty of manager of the Long Beach assembly plant.

## SERIES OF TRAFFIC SESSIONS IN FALL

(Continued from Page 1)

Northeastern and Southeastern divisions of the United States Chamber of Commerce under Vice-Presidents Alfred J. Brosseau of New York and William M. Wiley of Sharples, W. Va.

States that will be represented in the conference at Philadelphia are Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia.

The states that will participate in the conference at Boston are Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Conferences have also been scheduled for Chicago on November 5 and 6, for the states of Illinois, Indiana, Iowa, Kentucky, Michigan, Missouri, Ohio and Wisconsin, and at Minneapolis on November 7 and 8, for the states of Minnesota, Montana, North Dakota and South Dakota.

There will also be conferences in November for the Southeastern states at Atlanta, and for the Southwestern states at Dallas. Two other conferences for the Rocky Mountain and Pacific Coast states will be held in December.

**Representatives and delegates from the chambers of commerce and business organizations in the cities and states of each region will take part in the conferences. Inquiries from many of these organizations on the various phases of traffic and of aviation problems prompted the Chamber of Commerce of the United States to arrange for the eight assemblages. Public traffic officials and authorities, and aviation experts, will attend the sessions and participate in the discussions.**

While the discussions of each conference will be concentrated upon the vehicular traffic and aviation problems of each of the regions, and of the nation as a whole, attention will be given especially to questions that peculiarly affect each region, with their relationship to the advancement and development of aviation and of street and highway safety from a national standpoint.

The outstanding aspects of motor vehicle traffic conditions that will be considered are:—

1. Adoption by states and cities of uniform laws and ordinances for the control and regulation of street and highway traffic.
2. Safety and accident prevention in the operation of motor vehicles and the movement of traffic.
3. Immediate and permanent measures for the relief of traffic congestion and facilitating the movement of vehicles.
4. Safeguards and safety measures at street and highway intersections and railway grade crossings.
5. Promotion of traffic safety and effective control through co-operation of business organizations and citizens' traffic committee, and the intelligent zoning and planning of towns and cities and locating arterial streets and highways.
6. Effective safety education, especially among pedestrians and children, and means for their protection in traffic danger zones.

## ALEXANDER WINTON WEDS FOR FOURTH TIME IN N. Y.

**New York,** Sept. 4.—Alexander Winton, 70-year-old retired automobile manufacturer, one of the originally small group of men which has put the world on wheels, was married here this week to Mrs. Mary E. Avery, 7350 Euclid Ave., Cleveland. The marriage was performed at the Marble Collegiate Church by the Rev. Howland Beek.

The new Mrs. Winton is Mr. Winton's fourth wife. She is a native of La Crosse, Wis. Mr. Winton is a pioneer in both the bicycle and automobile industries.

# Domestic and Export Car Sales Are Near Output

(Continued from Page 1)

**98.7 per cent. of the total production.**

In the corresponding period of 1929 the production of passenger cars in this country amounted to 3,189,241. The domestic registrations were 2,588,809, and the export shipments from the United States amounted to 286,304, making a total of domestic and foreign sales of 2,875,113, or the equivalent of 90.3 per cent. of the total output.

In the current year combined domestic and export sales of new passenger cars made in the United States exceeded the actual output in three different months, while in the first seven months of last year the sales exceeded the production in only one month.

**The high point for sales in relation to production this year came in July, when the distribution amounted to 121 per cent. of the output. In April the domestic and export sales were 102 per cent. of the production, while in April the sales were 104 per cent. of the output. The high point a year ago also came in July, when the domestic and export sales amounted to 111 per cent. of the production.**

The most unfavorable ratio between sales and production came this year in February, when the sales amounted to only 82.5 per cent. of the output. That was a better than normal condition, however, as production in that month always is largely for the spring buying season. In February of 1929, the sales amounted to only 66.6 per cent. of the total production.

Following are two tables showing the relation between production and domestic and export sales in the first seven months of 1930 and 1929:

1930

| | Production | Domestic sales | Exports | Per cent. sales and exports of production |
|---|---|---|---|---|
| January | 236,145 | 180,094 | 23,653 | 86.1 |
| February | 296,461 | 211,645 | 33,336 | 82.5 |
| March | 335,720 | 298,824 | 32,892 | 98.9 |
| April | 374,913 | 357,064 | 32,416 | 104.0 |
| May | 362,522 | 345,041 | 25,925 | 102.0 |
| June | 289,245 | 260,942 | 19,165 | 97.0 |
| July | 222,459 | 254,097 | *15,000 | 121.0 |
| Totals | 2,117,465 | 1,907,707 | 182,387 | 98.7 |

*Estimated.

1929

| | Production | Domestic sales | Exports | Per cent. sales and exports of production |
|---|---|---|---|---|
| January | 345,545 | 219,844 | 25,232 | 71.0 |
| February | 404,063 | 235,337 | 33,882 | 66.6 |
| March | 511,577 | 378,346 | 52,515 | 84.2 |
| April | 535,878 | 481,896 | 48,627 | 99.2 |
| May | 514,863 | 454,153 | 41,587 | 96.2 |
| June | 451,371 | 386,537 | 45,081 | 95.5 |
| July | 424,944 | 432,695 | 39,380 | 111.1 |
| Totals | 3,189,241 | 2,588,809 | 286,304 | 90.3 |

# SPARKS from DETROIT

**Hayseeds and Motor Cars**

* * *

**H. C. Maise Changes Bats**

* * *

**Stout Calls a Turn**

## By Chris Sinsabaugh

ROBERT C. GRAHAM, farmer of Washington, Ind., and Robert C. Graham, who is associated with his two brothers, Joseph B. and Ray A., in the ownership and management of the Graham-Paige Motors Corporation of Detroit, are one and the same person. Just now, though, the overalls have been doffed and Mr. Graham is back in the big city and tackling the problems that confront him as an automobile manufacturer. But he has had his fling this summer and is content to settle down for a while.

Said fling consisted in getting behind his fellow farmers in the Wabash Valley and promoting a show that proved to be not only interesting but educational as well. It lasted three days, in which time not only a cattle show was held but there were horse races and airplane exhibitions, all for the benefit of Mr. Graham's neighbors. The automotive magnate turned over his beautiful 5,000 acre model farm for the show; he brought prominent authorities on agricultural subjects to tell the farmers the science of farming and he staged demonstrations of agricultural equipment. Of course the affair was run as the Wabash Valley Parish Show, sponsored by the Jersey Cattle Clubs of Daviess, Vanderburg, Warrick, Knox and Gibson counties, but, after all, it was Robert C. Graham who was responsible for the big affair. That it was a success well proved by the attendance of 20,000 people to see the horse races. Walter T. Candler, the prominent sportsman of Atlanta, Ga., drove his horse, Eagen, in one of the events, which he won.

To slip away from the desk in the big Warren Street plant here and run down to the farm is something that fills Mr. Graham with joy. He is wrapped up in agriculture. While he is proud of owning 300 head of Jersey cattle, many of which are blue ribbon winners, he gets a big kick out of helping his fellow farmers by bringing to their attention the most modern methods of farming.

* * *

E. V. RIPPINGILLE is back from Europe. He has taken on a little weight, to be sure, but looks as if the two and a half years he spent abroad as chief engineer for General Motors Export hasn't hurt him any. Rip went over on a three years' assignment but did his work in six months less than that. Now he has time for a little vacation before again tackling General Motors problems.

* * *

A FORMER executive of the Briggs Manufacturing Company has taken up a new line. Herman C. Maise, former Briggs vice-president and general manager, has become president of the Maise Corporation, which will manufacture and sell the new Rightway oil burner, designed for heating purposes. The factory is at 1651 East Grand Boulevard, Detroit. Among the stockholders are several from the automobile industry, including Fred L. Rockelman, president of the Plymouth Motor Company; Paul W. Seiler, president of the General Motors Truck Corporation; George W. Kennedy, president of the Kelsey-Hayes Wheel Company; Charles B. Bohn, president of the Bohn Aluminum and Brass Corporation, and Joseph Galamb, chief engineer of the Ford Motor Company.

* * *

WILLIAM B. STOUT, now president of the Stout Engineering Laboratories, Inc., but whose automobile fame was gained as designer of the trim little Scripps-Booth roadster of some years back, created quite a stir at the Chicago meeting of the Society of Automotive Engineers, they tell me. Stout was a prominent figure during aviation week and he was very much in the limelight as toastmaster of the big banquet.

In talking to the S. A. E. crowd, however, Stout, as usual, had something to say, and he said it. After telling his listeners about important matters in connection with aviation practice, he wound up his talk:

"The wizard of them all, when it comes to flying, is the four-winged dragon fly, which will follow your bait through the air on a fish line as fast as you throw it; stop, stand still as the hook hits the water, fly back again, stand still in the air, or fly backwards while waiting to catch up with the bait on your next swing. Try that on your helicopter."

### IOWA'S 3-CENT GAS TAX $1,203,818 IN AUGUST

**Des Moines,** Sept. 4.—For the third month this year and establishing a new record of revenue, Iowa's three-cent gasoline tax collections in August, covering July consumption, reached $1,203,818.07, bringing total collections for the year to $7,393,467.88, as compared to $5,988,366.68 for the same period in 1929. The previous record, established last September, was $42,000 less than the August collections.

# Electric Auto-Lite Earns More Than Its Dividends

**NEW YORK, Sept. 4.—Report of the Electric Auto-Lite Company and subsidiaries for the six months ended June 30, 1930, shows a profit after depreciation and interest and after deducting $368,890 extraordinary charges, of $3,364,839 before Federal taxes.**

This compares with a profit in the first half of 1929 of $10,200,763, including $4,000,000 non-recurring income arising from sales of minority interests in the Eclipse Machine Company to the Bendix Corporation.

For the quarter ended June 30, profit before Federal taxes was $1,434,335, comparing with $1,930,504 in the preceding quarter and $6,801,679 in the second quarter of 1929. Capital stock consists of 41,604 shares (par $100) of 7 per cent. preferred and 926,515 no-par common shares.

The consolidated income account for the six months ended June 30, 1930, compares as follows:—

| | 1930. | 1929. |
|---|---|---|
| Profit before deprec'n. | $6,054,400 | *$8,288,288 |
| Expenses, etc | 1,643,382 | 2,000,006 |
| Depreciation | 664,932 | — |
| Interest | 11,857 | 87,519 |
| Profit | $3,733,729 | $6,200,763 |
| Extra income | — | †4,000,000 |
| Total profit | 3,733,729 | $10,200,763 |
| Extra charges | ‡368,890 | — |
| Profit before Fed. tax. | $3,364,839 | $10,200,763 |

*After depreciation. †Non-recurring income. ‡Extraordinary charges.

C. O. Miniger, president of the company, in commenting on the report, said: "Following the conservative policy of the company, extraordinary charges amounting to $368,890, part of which was caused by moving into our new plants, have been written off against the six months earnings, leaving profit before taxes of $3,364,839. During this period the company completed two new plants, one at Toledo and one at Sarnia, Ont., and commenced production in these plants with the usual added costs.

"Auto-Lite will have earned more than its liberal dividend for the nine months ended September 30, 1930, which period will have included July, the lowest point of automobile production for many years. The company has plenty of cash."

Mr. Miniger said that while he did not expect any rapid increase in automobile production during the balance of the year, he was satisfied that the new models of several of Auto-Lite Company's customers, which will be in production in the early part of November, together with the battery business which is always better in the fall, would permit the company to show satisfactory earnings for the fourth quarter.

The directors declared the regular quarterly dividend of $1.50 on the common and $1.75 on the preferred, both payable October 1 to stock of record September 20.

## OTHER FINANCIAL NEWS

### BOHN ALUMINUM

Bohn Aluminum and Brass Company has declared a dividend of 37½ cents, payable October 1 to stock of record September 15. Previously, company paid dividends at quarterly rate of 75 cents.

### MICHIGAN STEEL

The income account of the Michigan Steel Corporation for the six months ended June 30, 1930, follows: Manufacturing profit, $1,073,255; expenses, $217,056; operating profit, $856,199; other income (net), $4,440; total income, $860,639; depreciation, $96,693; interest and bond discount, $48,276; Federal taxes, $87,234; net profit, $628,436.

# Automotive Stock Statistics

**(Corrected daily for Automotive Daily News records.)**

**PASSENGER CARS AND TRUCKS**

| | Funded Debt. | Pf. Stock. | Shares Com. Stock Out. | Par Val. | Surplus. |
|---|---|---|---|---|---|
| General Motors ... | None | $138,916,000 | 43,500,000 | $10 | $380,560,000 |
| Chrysler Corp..... | $49,754,999 | None | 4,431,575 | None | 56,792,000 |
| Studebaker Corp... | None | 6,750,000 | 1,961,413 | None | 30,562,000 |
| Packard ..... | None | None | 15,000,000 | None | 15,584,000 |
| Willys-Overland .. | 4,000,000 | 14,602,000 | 2,999,882 | 5 | 30,180,000 |
| Hudson ..... | None | None | 1,596,660 | None | 38,726,000 |
| Mack ..... | *2,200,000 | None | 764,125 | None | 54,761,000 |
| Nash ..... | None | None | 2,730,000 | None | 39,771,000 |
| White ..... | *2,200,000 | None | 800,000 | 50 | 8,678,000 |
| Hupp ..... | None | None | 1,512,091 | 10 | 18,943,000 |
| Reo ..... | None | None | 2,000,000 | 10 | 10,833,000 |
| Yellow T. & C..... | None | 15,000,000 | 1,300,000 | 10 | 989,000 |
| Graham-Paige .... | 2,800,000 | 5,368,000 | 1,727,201 | None | †17,206,000 |
| Auburn ..... | None | None | 173,385 | None | 6,210,000 |
| Pierce-Arrow ..... | None | 7,500,000 | 197,250 | None | 3,307,000 |
| Checker Cab Mfg.. | None | None | 375,000 | None | 5,124,000 |
| Marmon ..... | None | 1,000,000 | 265,200 | None | 1,207,000 |
| Brockway ..... | 225,000 | 2,290,000 | 219,082 | None | 1,656,000 |
| Fed. Mot. Truck ... | 686,000 | None | 499,543 | None | 3,714,000 |
| Peerless ..... | None | None | 258,589 | 50 | d1,750,000 |
| Jordan ..... | 187,500 | 925,000 | 396,581 | None | 452,000 |
| Moon ..... | None | None | 350,000 | None | †1,782,000 |
| Gardner ..... | None | None | 300,000 | 5 | †1,711,000 |
| American Austin... | .. | .. | 291,125 | .. | .. |
| Durant ..... | 4,221,000 | None | 1,753,799 | None | ‡d12,838,000 |
| Paramount Cab.... | None | None | 250,000 | None | 741,000 |
| Stutz ..... | 590,000 | None | 296,741 | None | 1,879,000 |
| Ford of Canada.... | None | None | 1,588,000 | None | 29,763,000 |

**ACCESSORIES, PARTS AND EQUIPMENT**

| | | | | | |
|---|---|---|---|---|---|
| Timken Roller Bear | None | None | 2,407,824 | None | 40,458,000 |
| Cont. Motors ..... | None | None | 2,113,000 | None | 9,676,000 |
| Briggs Manufact .. | None | None | 2,003,225 | None | 19,580,000 |
| Borg-Warner ..... | 1,909,000 | 3,500,000 | 1,230,731 | 10 | 16,472,000 |
| Stewart Warner ... | None | None | 1,298,919 | 10 | 17,933,000 |
| Bendix ..... | None | None | 2,097,454 | None | 11,076,000 |
| Electric Auto-Lite.. | None | 4,162,000 | 899,129 | None | 16,164,000 |
| Murray Corp ..... | 3,629,000 | None | 773,307 | None | 2,183,000 |
| E. G. Budd Mfg... | 3,177,000 | 7,272,000 | 1,031,352 | None | 2,013,000 |
| Raybestos-Man .... | None | None | 676,012 | None | 8,160,000 |
| Timken Detroit ... | None | 3,697,000 | 992,096 | 10 | 4,233,000 |
| Kelsey Hayes ..... | None | 3,508,000 | 749,454 | None | 9,697,000 |
| Eaton Axle & Sp.. | 750,000 | None | 653,121 | None | 14,000,000 |
| Motor Wheel ..... | None | None | 850,000 | None | 6,682,000 |
| Midland Steel .... | None | 9,693,000 | 242,325 | None | 5,539,000 |
| Spicer Mfg ..... | 110,900 | 100,000sh. | 357,750 | None | 3,934,000 |
| American Bosch .. | 756,000 | None | 208,799 | None | 7,802,000 |
| Houd-Hershey ..... | None | 174,849sh. | 514,170 | None | 1,589,000 |
| Marlin Rockwell .. | None | None | 364,145 | None | 8,579,000 |
| Bohn Al. & Br..... | 1,901 | None | 352,418 | None | †8,637,000 |
| Motor Products ... | None | None | 197,366 | None | 6,022,000 |
| Young. Spr. & W.. | 642,000 | None | 412,500 | None | 3,097,000 |
| Mullins Mfg ..... | None | 3,000,000 | 100,000 | None | 3,853,000 |
| Budd Wheel ..... | None | 1,176,000 | 969,428 | None | 1,309,000 |
| Thompson Products | None | 389,000 | 263,160 | None | 3,501,000 |
| Campbell, Wyant... | None | None | 348,000 | None | 1,603,000 |
| Hayes Body ..... | None | None | 317,248 | None | †5,532,000 |
| Trico ..... | None | None | 374,491 | None | 2,953,000 |
| Moto Meter Gauge | None | None | 507,699 | None | †4,095,000 |
| Briggs & Stratton. | None | None | 300,000 | None | †3,176,000 |
| Hercules Motors .. | None | None | 312,500 | None | 1,756,000 |
| Martin Parry ..... | None | None | 125,000 | None | 516,000 |
| Thermoid Corp ... | 2,954,000 | 3,179,000 | 244,994 | None | †2,364,000 |
| Gabriel Snubber .. | None | None | 198,000 | None | 931,000 |
| Triplex Safety Glass. | None | 14,750sh. | 182,250 | None | †3,217,000 |

**TIRES**

| | | | | | |
|---|---|---|---|---|---|
| Goodyear ..... | **67,709,000 | 79,619,000 | 1,378,139 | None | 52,648,000 |
| Firestone ..... | 22,718,000 | 60,000,000 | 2,239,860 | 10 | 47,453,000 |
| U. S. Rubber ..... | 114,572,400 | 65,109,000 | 1,464,371 | None | 10,628,000 |
| Goodrich ..... | 62,725,000 | 31,532,000 | 1,167,142 | None | 25,748,000 |
| Fisk ..... | **17,414,000 | 29,405,000 | 1,705,037 | None | d6,066,000 |
| Kelly-Springfield... | None | 8,215,000 | 1,063,840 | None | d5,366,000 |
| Lee ..... | None | None | 300,000 | None | 7,275,000 |
| Intercontinental .. | None | None | 596,004 | None | 1,009,000 |
| Norwalk Tire & R. | None | 1,054,000 | 149,500 | None | d148,000 |

*Funded debt of subsidiary. **Including subsidiary. †Includes common stock valuation. d-Deficit. ‡As of December 31, 1928. sh.-Shares.

# ATLANTA CAR SALES ON UPWARD SWING

(Continued from Page 1)

ness and we do not notice any appreciable drift away from the more expensive cars towards lower priced makes as a result of present business conditions."

The D. C. Black Company, dealer in Buicks, reports good sales of both new and used cars for the last ten days of August.

In short, there is a feeling among the dealers, and growing stronger every week, that at last the time has turned and sales will show an increase during the fall and winter months. Transportation, they point out, is one of the greatest necessities of modern days, and the public will not be without it. After three years of quietude they believe that the time has come for an improvement and the opening of September sales seems to indicate that their predictions will come true.

# CALIFORNIA CONSIDERS TRAFFIC LAW CHANGES

**San Francisco, Cal.,** Sept. 4 (UTPS).—The California Motor Vehicle Conference is now holding its sessions for the purpose of studying the advisability of making changes in the California motor vehicle act and presenting such suggested changes to the coming regular sessions of the state Legislature. The groups represented at the conference meetings are:—

San Francisco Motor Car Dealers' Association, Los Angeles Motor Car Dealers' Association, Motor Carriers' Association, Truck Owners' Association of Southern California, Los Angeles County Motorcycle Patrol, California State Automobile Association, Automobile Club of Southern California, State Division of Motor Vehicles, State Railroad Commission, State Highway Commission, California State Chamber of Commerce, and the California Farm Bureau Federation.

# ERIE, PA., DEALERS HOLD LARGE ANNUAL OUTING

**Erie, Pa.,** Sept. 4.—Fully a thousand were in attendance last week at the annual outing of the Erie Automotive Association, the local organization composed of distributors and dealers of automobiles, trucks and accessories, held at Port Dover, Ont. The steamer Keystone was chartered to take the members across Lake Erie to the Canadian resort. A program of sports and recreational entertainment was enjoyed. William Stirling, president of the Stirling Brothers Company, Dodge distributor, and head of the local association, presided.

# Young Women Sell Fords Amid Modernistic Settings; Club Lounge Novel Feature

By K. H. LANSING

PICTURE to yourself an astonishingly ultra-modernistic setting involving a club lounge furnished with luxurious, red cushioned reed chairs and settees; a baby grand piano, radio cabinet, writing desk and table holding an aquarium and magazines; tapestries and pictures, harmonizing with the cream and light blue color scheme of the walls and velvety rug; ornamental bridge lamps, even orchids in an art vase in the front window. Imagine yourself proceeding down a few steps and into another and more spacious room, also with cream and blue walls; matching wall brackets filled with casino trees and blooms, placed midway between the lofty ceiling, and the floor inlaid with colored tiles. Let your mind's eye spy out, perched on these brackets and on floor pedestals, tiny birds of brilliant silk chenille plumage; iron grille gateways in lieu of doors: here and there a garden bird bath, a formal garden seat of stoneware occupying a plot of imitation turf; now and then an aquarium containing goldfish; in the center space at the rear a grille-gated bower done in light blue, even to desks and other furnishings. Then wipe your mind's eyeglasses, if any, and wake up.

You are really in Philadelphia's new and most unusual Ford sales and service building, that of the Logan Auto Company, Inc., 4634-40 North Broad St., Logan, and, man, yo' ain't seen nothin' yet. William F. B. Koelle, president of the company and an architect of established reputation, planned and designed the whole works. Back in 1914 he was a Ford dealer, too. Now he's taking another whirl at it and putting his new agency over with a bang.

That club lounge you just mentally investigated is also known as the Hostess Room. What? Sure, they have a hostess, a sales hostess, Miss Eva E. Farrell, and they have eighteen young saleslades with "it," pep, charm and especially business ability. The girls are in the building only intermittently, so to speak, except on their special meeting nights three times a week and their monthly joint session with the salesmen, of whom there are about as many as there are girls.

The girls' selling division is called the "Ladies' Sales Club," for euphony and all that sort of thing. Already they have proved their sales ability and have disposed of a considerable quantity of both new and used passenger cars and trucks. The girls, who are carefully selected for type by C. L. Barlow, their special director, who is devoting from twelve to fifteen hours daily to his job of training and supervising the young women and closing all their deals for them, start out in their own cars, each armed with a sheaf of personal business cards provided by the company, these containing the name, address and telephone numbers of the agency, as well as the name of the saleslady. They call at the homes of the prospects, many of whom they locate themselves. They make the contacts and follow up, when necessary, just like the male members of the selling force, with this difference: They do no floor duty and, as mentioned, they do not close their deals, but report to their director when the time is ripe, and he finishes the job. They do, however, bring into the club lounge and the showroom as many prospects as they can after having made the initial contacts at the prospects' homes; hence, they do their selling both there and in the agency building, without waiting about on the floor.

That rear-space bower in baby blue, even to the desks, is not for the young women. Believe it or not, this is the salesmen's room and the men sit at these desks sometimes looking quite serious. Just above this space is the mezzanine, accommodating the remarkable private office of President Koelle, an elaborately furnished anteroom and the general office. The president's office is also done in cream and blue. A tall six-branch candelabrum of ornamental iron placed beside his desk helps illuminate it and there are tapestries and pictures on the wall and potted plants on stands.

Assisting the president in an executive capacity, in addition to those already mentioned, are: E. Herbert Steinbach, executive director; Edward Connelly, director of service; LeRoy S. Streeter, director of sales, and Miss Irene R. Rosenthal, executive secretary.

The exterior of the building is creamy brown stucco and on either side of the front driveway past the little wing that houses the hostess club, is a rock garden, with bird houses on poles and blue and white art jars. The company has issued invitations to the public to make use of the hostess club room for card parties, teas and dances and even offers to clear the showroom floor as well, for evening functions. Already a number of functions have been lined up for late September and October. Daily, both men and women take advantage of the company's invitation to use the lounge room for their convenience.

President Koelle is head of a Tom Thumb golf club a few blocks away, and there is a clever advertising tie-up between that and the dealership which offers prizes for golf contests, the season's outstanding prize being a Ford sedan, exhibited on the miniature course, while other prizes are shown in the display windows.

# G. M. GRAHAM SPEAKER AT ONTARIO DEALER MEETING

**Toronto, Ont.,** Sept. 4 (UTPS).—Optimism regarding the automotive business outlook was expressed by G. M. Graham, vice-president of the Willys-Overland Company, in addressing the annual convention of the Ontario Willys-Overland dealers, held at the Palais-Royle here. Mr. Graham said one reassuring factor, showing that the cycle of business was about to turn, was that there was a shortage of commodities. Shelves of both retailers and wholesalers were described as virtually bare. The best assurance that good times were about to return was the fact that people were returning to the old principles of thrift.

T. A. Russell, president of Willys-Overland of Canada, Ltd., who was chairman, said that because the stocks of secondary manufacturers, wholesalers and retailers were so low at present the effect would be a gradual acceleration of normal business conditions. Over 100 Ontario Willys-Overland dealers attended the convention.

# CHRYSLER SHIPMENTS OFF SLIGHTLY IN AUGUST

**Detroit,** Sept. 4.—Shipments of Chrysler-built passenger cars, trucks, buses and motor coaches and taxicabs totaled 18,184 during August, compared with 21,779 in July and 47,274 in August, 1929.

Retail sales of Chrysler products are continuing to maintain a satisfactory level. Company estimates that in August deliveries to the public of Plymouth cars equaled 94 per cent. of last year's record and were more than 6 per cent. greater than 1928 sales during the corresponding period.

Orders for the recently introduced Dodge truck are coming in at a satisfactory rate.

# W. F. BAUMAN TO MANAGE PINE BLUFF NASH PLANT

**Pine Bluff, Ark.,** Sept. 4.—C. A. Dunning has resigned as general manager of the Seaman-Dunning Corporation, Nash automobile body manufacturing plant here. W. F. Bauman of Milwaukee has been named his successor. Ralph J. Dunning continues as plant manager.

# Automotive Daily News

"Of, By and For the Entire Automotive Industry"

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## Don't Lose Your Identity

IN most phases of human life success of any sort is tied up with some definite identity. John D. Rockefeller and oil are linked together in the public mind so that mention of one instantly calls up the other. Traffic policemen endeavoring to be witty still ask the captured speeder if he "tinks he's Barney Oldfield," despite the fact that Barney hasn't touched a steering wheel on a track for many years. Speak of home runs and the ponderous image of Babe Ruth instantly flashes into the mind, though the conversation may have nothing to do with the great clouter.

The same thing applies to products. Mention soap and a certain trade name will be the reaction in almost any hearer's mind. Say "I'd walk a mile" for something and most men will reach for matches. Perhaps we are getting on delicate ground, but almost anyone can think of a dozen nationally advertised products whose identity has been so firmly established by a certain color or a definite shape or a slogan or something else, that mention of one instantly calls up the image of the other. And even your best friends don't have to tell you!

In the motor car field this firm retention of identity is one of the foundation stones of success, if it is not the veritable keystone of the arch. Most of us can look back over the years and pick out certain cars which have established definite styles in body design, which gave the individual vehicles a defi : and recognized identity. Surely it is not going beyond the bounds of good taste to say that this year the Cord and Austin cars, for certain definite reasons of line and size, have established an identity recognizable by any one. Years and years ago the British Rolls-Royce established an ider y with its body form which has lasted to the present time. Pierce-Arrow, with its headlights set in the fenders, certainly established a style that let everyone know: "There goes a Pierce." We could go on for a considerable space quoting examples of definite identity-impressing characteristics.

In this essentially "style industry" that supplies motor vehicles, body lines do not establish identity forever. Lines, if they demonstrate appeal, are copied and adapted until the once unique style no longer establishes the identity of the car that originated it. Then the originator must originate again.

If we were charged, which God forbid, with the task of reviving an ailing car or establishing a new one, our first endeavor would be to hit on something that would impress the identity of the vehicle on everyone who saw it. We cannot give to the general public our idea of just what we would do; in fact we confess that we do not know ourselves. We might paint a crowing rooster on the hood of every car. We might put a live one in a cage on the roof of every car. We might make the windshield striped, alternately white and blue. We don't know what we would do, but it would be something that would make everyone in the world, when he saw one of our cars, say: "There goes a Blank eight." If we could make the distinguishing characteristic of our car, the feature that establishes its identity, a factor of beauty, we would have done the whole trick. But at any cost, we would make our car unmistakably recognizable by every beholder.

We offer this tip without royalty or fee, in the interests of human progress, to the whole automotive industry. Amen.

## The Truck Makers Are There

Whatever the year 1930 may have done to some business interests, the motor truck manufacturers of America have not let it throw them. In a recent issue of Automotive Daily News an analysis showed that truck production during the first seven months of this year was ahead of the same period in 1927 and 1928 and only 5 per cent. off from the average for the last three years, which included the abnormal and record period of 1929.

# News In The Jobber Field

## M. E. A. DIRECTORS RAP COLLECTIONS BY FEE AGENCIES

### Resolution Urges Members to Investigate Carefully

CHICAGO, Sept. 4.—Directors of the Motor and Equipment Association, at their recent meeting here, adopted a resolution condemning the practices of certain collection agencies which operate solely with their own fees in mind to the detriment of the best interests of creditors and the debtor.

"Certain types of collection agencies often operate in a way which, though legal, forces the debtor into bankruptcy unnecessarily and dissipates assets to such an extent as to cause the clients and other creditors unnecessary and avoidable loss," said M. L. Heminway, managing director of the M. E. A., in explaining the resolution. "They follow this procedure because it means larger fees for them.

"Our resolution urges our members to give serious consideration to the qualifications of a collection agency, in regard to its capacity to operate in an ethical manner and to the best interests of the debtor, the client, and other members. Our own credit department, through its affiliation with a responsible adjustment bureau, has been able in a number of instances to conserve the assets, save the debtor, and secure for all creditors a better return," Mr. Heminway said. "We are urging our members to utilize this service in every case where collections are necessary.

"In a recent actual case," he added, "a creditor placed an account for collection with a certain agency. This agency, upon admission of one of its own officials, saw an opportunity to earn a larger fee by throwing the debtor into bankruptcy. It successfully solicited the accounts of two other creditors and started proceedings.

"Our credit department heard about the case in time to get its adjustment bureau to work. Although it was too late to save the debtor it did organize friendly creditors in time to institute bankruptcy proceedings upon a basis which will result in better returns for all creditors.

"This debtor might have been saved and creditors would have received even better returns eventually if proper action had been taken in the first place."

Mr. Heminway pointed out that in times of unusual stringency the services of a reliable credit service are absolutely necessary. The M. E. A. credit department, which has served members of the association for more than twenty years, is the only one of its kind in the industry based on the confidential interchange of information between members and supplying to members information which represents the best thought of carefully selected groups of leading credit executives in the industry.

### INDIANA'S AUGUST GAS TAX AT NEW HIGH RECORD

**Indianapolis**, Sept. 4.—Gasoline tax collections in August, covering sales for the month of July, were the highest ever recorded in the history of the Indiana gasoline tax, according to the state collector. Vacation motoring and hauling of farm crops to market by truck was credited with having been responsible for the gain over previous months. Collections for August totaled $1,866,390.58, an increase of $202,144 over collections in the same month of last year, and an increase of $13,481.76 over the previous record of $1,852,908.82 established in September of 1929.

## *Editor's Column*

**LEGISLATION looking to the compulsory inspection of motor vehicles at least once and perhaps twice a year is favored by the New Hampshire state commissioner of motor vehicles, John F. Griffin. He has announced that he reached this conclusion as a result of the experience in the "Save-a-life" campaign which started in New Hampshire and the other New England States August 1.**

"More than 70,000 automobiles have been inspected in the state to determine the adequacy of brakes and other equipment," Mr. Griffin said. "I consider the principle safety devices on a car to be the brakes, lights and steering mechanism. It is in these components that the greatest errors of adjustment have been discovered in the inspections.

"The campaign has shown inattention to be one of the major causes of accidents. Accident records also show that failure to slow down at intersections is a major accident cause.

"As an example of the inattention to ordinary precaution on the part of drivers, an inspector recently noted that the brace holding an engine in place was broken, and as a temporary support a piece of wood had been installed. This car was taken from the road at once.

"Periodic inspections will serve to eliminate automobiles that are a menace, not only to safety of the driver, but to others. If an autoist objects to having his car inspected he should not complain if his right to use the roads is taken away from him."

**INSPECTION of 4,000 automobiles to determine their mechanical condition as a part of Vermont's state-wide "Save-a-Life" campaign, revealed the number of cars in unsafe condition to be "startling and beyond comprehension," according to a statement issued by the State Department of Public Vehicles.**

Commissioner Charles T. Pierce states that he is more than gratified by the hearty response that has been made to this worthy movement by the motoring public. He also states that out of the first 4,000 cars inspected it is startling and beyond comprehension that so many cars are being found in an unsafe condition—for instance, 1,484 brakes out of a total of 4,000 inspected, were found to be defective, requiring either adjustment or new brake linings. This represents a little better than 37 per cent. of the 4,000 cars inspected as having unsafe brakes.

He pointed out that lights represent the greatest defects of the seven salient points of inspection. It was found that out of the 4,000 cars inspected, 3,115 cars had to have their lights properly focused and adjusted or new lights substituted. This represents a total of over 77 per cent. of the cars inspected, as having defective lights.

Another startling condition is that of the steering mechanism. Four hundred and one cars inspected needed either steering adjustment or new parts installed. In other words, over 10 per cent. of the cars inspected had unsafe steering mechanism.

The commissioner states that the campaign will be rigidly enforced, and he hopes that there will not be a Vermont motor vehicle that is registered that will not have been inspected and display the official inspction sticker on the windshield. The state motor patrol will take an active part in running down the old junk cars.

### A. H. FLOYD PROMOTED

**Indianapolis, Ind.**, Sept. 4.—A. H. Floyd, veteran new and used car salesman and appraiser, has been appointed manager of the used car branch of the C. O. Warnock Company, Ford dealer.

## NEW SERVICE IDEA BEING WORKED OUT AT ONE-STOP STATION

**JERSEY CITY, N. J., Sept. 4.—A new idea in automobile service in Hudson county is being carried out by George Eckel through his new "one-stop" station at 332 to 338 Bergen Ave. Eckel calls for the owner's automobile in his new green and gold truck, takes it to his service station, puts it into condition and returns it to the door.**

The new station performs every possible service to a car at only one stop there. Tires are conditioned, batteries are tested, the car is completely lubricated, washed and polished, supplies are put in and repairs are made.

The first Eckel's shop was started by William Eckel and Arthur Farrington in a small frame building at 523 Mercer St., in 1919. At this time the shop was almost exclusively devoted to vulcanizing.

The following year they moved to larger quarters at 532 Mercer St. At this time a corporation was formed and George Eckel took charge with William as a member of the firm. The new shop carried a full line of automotive supplies.

In less than two years the business had grown so that still larger quarters had to be found. The new shop was opened at Mercer Street and Summit Avenue. Here the company started its pioneering work on greasing automobiles. Complete equipment was installed to make the shop the most modern greasing station of those days.

The motor industry moved fast, however, and in 1923 the shop was renovated to give service up to the needs of the moment and a new station was erected at Boulevard and 15th Street, Union City.

During the following year new stations were added from time to time, making seven in all, spread from Bayonne to Union City. Recently the Shell Oil Company took over the majority of these stations, but the Eckel Company retained its first location at Mercer Street and Summit Avenue, devoting itself entirely to servicing automobiles.

### SHEET METAL DISTRIBUTORS WILL MEET ON OCTOBER 21

**Atlantic City, N. J.**, Sept. 4.—The midyear meeting of the National Association of Sheet Metal Distributors will be held October 21 at the Marlborough-Blenheim, in this city.

## COMING EVENTS

**SEPTEMBER**

22-26—**Chicago, Ill.** American Society for Steel Treating meeting at Stevens Hotel.
29-Oct. 4—**Pittsburgh, Pa.** National Safety Council Annual Safety Congress.

**OCTOBER**

2-12—**Paris, France.** Automobile Salon.
6- 7—**Reading, Pa.** Pennsylvania Automotive Association Convention.
6-11—**Washington, D. C.** Sixth International Road Congress.
6-11—**Washington, D. C.** American Roadbuilders' Association Convention.
7- 8—**Detroit, Mich.** Society of Automotive Engineers production meeting at Book-Cadillac Hotel.
14-15—**Syracuse, N. Y.** New York State Dealers' Association Convention.
16-25—**London, England.** Olympia Motor Show.
22-24—**Pittsburgh, Pa.** Society of Automotive Engineers transportation meeting.

**NOVEMBER**

4- 7—**Chicago, Ill.** National Tire Dealers' Association Convention.
6-16—**Berlin, Germany.** International Automobile Show.
8-15—**Chicago, Ill.** Automobile Salon at Drake Hotel.
10-14—**Cleveland, O.** Motor and Equipment Association Show.
13-23—**Paris, France.** Commercial Vehicle Salon.
17-21—**Cleveland, O.** National Standard Parts Association Show.
30-Dec. 6—**New York.** Automobile Salon at Hotel Commodore.

**DECEMBER**

6-17—**Brussels, Belgium.** Automobile Exhibition.

**JANUARY**

3-10—**New York.** National Automobile Show.
24-31—**Chicago, Ill.** National Automobile Show.

**FEBRUARY**

7-14—**Los Angeles, Cal.** Automobile Salon.
21-28—**San Francisco, Cal.** Automobile Salon.

# Bay State's New Car Sales Show Seasonal July Decline

**NEW YORK, Sept. 4.—Massachusetts new car registrations in July showed a seasonal decline of 13.6 per cent., as compared with June, while the decrease from July, 1929, was 32.5 per cent. In the first seven months 19.4 per cent. less cars were registered, as compared with the same period a year ago.**

Austin had a registration of forty units.

Although Ford in the first seven months maintained a lead of 4,841 units over the first seven months of 1929, it showed a loss in July, as compared with both June, 1930, and July, 1929.

Gains over June were shown by Cord, Durant, Gardner, Hupmobile, Jordan, Lincoln, Nash, Oldsmobile, Peerless, Reo, Studebaker, Stutz and Willys-Knight. Lincoln was also tied with its July, 1929, mark.

Pierce-Arrow and Marquette, in addition to Ford, were the only makes showing increases over the first seven months of 1929.

Registrations in July, as compared with the same month a year ago and June of this year, follow:

| | July 1930 | July 1929 | June 1930 |
|---|---|---|---|
| Auburn | 33 | 89 | 38 |
| Austin | 40 | * | * |
| Buick | 326 | 624 | 351 |
| Cadillac | 66 | 63 | 74 |
| Chevrolet | 1,567 | 2,145 | 1,799 |
| Chrysler | 220 | 392 | 280 |
| Cord | 7 | * | 5 |
| De Soto | 84 | 206 | 104 |
| Dodge | 292 | 474 | 361 |
| Durant | 56 | 111 | 57 |
| Essex | 377 | 1,080 | 451 |
| Ford | 4,478 | 4,799 | 5,301 |
| Franklin | 28 | 98 | 35 |
| Gardner | 3 | 25 | 1 |
| Graham | 104 | 257 | 140 |
| Hudson | 130 | 325 | 157 |
| Jordan | 10 | 14 | 8 |
| La Salle | 42 | 139 | 76 |
| Lincoln | 18 | 18 | 15 |
| Marmon | 53 | 120 | 56 |
| Marquette | 13 | 120 | 35 |
| Nash | 306 | 503 | 304 |
| Oakland | 60 | 111 | 69 |
| Oldsmobile | 184 | 279 | 181 |
| Packard* | 212 | 242 | 303 |
| Peerless | 31 | 50 | 27 |
| Pierce-Arrow | 40 | 66 | 46 |
| Plymouth | 253 | 264 | 311 |
| Pontiac | 220 | 664 | 261 |
| Reo | 49 | 114 | 48 |
| Studebaker | 294 | 432 | 251 |
| Stutz | 3 | 13 | 2 |
| Viking | 6 | 21 | 9 |
| Whippet | 35 | 393 | 43 |
| Willys | 82 | * | 110 |
| Willys-Knight | 90 | 246 | 79 |
| Miscellaneous | 5 | 62 | 3 |
| Totals | 9,958 | 14,751 | 11,526 |

The registration for the seven months period, compared with the same period last year, follows:

| | 1930 | 1929 |
|---|---|---|
| Auburn | 402 | 481 |
| Austin | 40 | * |
| Buick | 3,151 | 3,850 |
| Cadillac | 403 | 565 |
| Chevrolet | 12,955 | 14,833 |
| Chrysler | 1,852 | 2,365 |
| Cord | 59 | * |
| De Soto | 744 | 1,262 |
| Dodge | 2,531 | 3,419 |
| Durant | 435 | 538 |
| Essex | 3,863 | 8,314 |
| Ford | 31,499 | 26,658 |
| Franklin | 343 | 605 |
| Gardner | 36 | 80 |
| Graham | 876 | 1,872 |
| Hudson | 1,406 | 2,355 |
| Hupmobile | 991 | 1,405 |
| Jordan | 35 | 57 |
| La Salle | 559 | 1,006 |
| Lincoln | 135 | 180 |
| Marmon | 390 | 724 |
| Marquette | 320 | 257 |
| Nash | 1,992 | 4,008 |
| Oakland | 627 | 820 |
| Oldsmobile | 1,468 | 1,999 |
| Packard | 1,351 | 1,989 |
| Peerless | 239 | 357 |
| Pierce-Arrow | 395 | 347 |
| Plymouth | 1,437 | 1,673 |
| Pontiac | 2,310 | 4,692 |
| Reo | 523 | 849 |
| Studebaker | 1,755 | 2,449 |
| Stutz | 32 | 67 |
| Viking | 63 | 65 |
| Whippet | 314 | 3,144 |
| Willys | 760 | * |
| Willys-Knight | 611 | 1,344 |
| Miscellaneous | 41 | 778 |
| Total | 77,007 | 95,524 |

*Not on market at that time.

# *Dealer Activities*

**Chicago,** Sept. 4.—Something new in service is announced by H. T. Hollingshead, president of the Chicago Nash Company, in the form of "courtesy car" transportation to take owners from the famous Nash service station on 24th Street to downtown offices after leaving their cars to be worked on, and back again for delivery after completion of the work.

**Jacksonville, Fla.,** Sept. 4.—F. V. Oliver Motor Company, Inc., of this city, has just been appointed distributor for the Studebaker line of cars in Duval and thirty adjoining counties. Frank V. Oliver is president of the new dealership and C. D. Cross is vice-president and general manager.

**Newark, N. J.,** Sept. 4.—Alfred De Cozen, president and general manager of the De Cozen Motor Company, New Jersey Chrysler distributor, announces the opening of a direct retail sales and service branch of the De Cozen Motor Company at 932 Market St., Paterson. The branch will be under the management of S. A. Anderson of Hasbrouck Heights, who has been in Paterson automobile trade circles for many years. The new branch has taken an attractive display room and larger service station in Paterson's automobile row and a complete line of new Chrysler sixes and eights has been placed on display. Complete service and parts departments are being organized under the direction of the Newark executives and will be ready for the public this week.

**New York,** Sept. 4.—The B-T Motors, of which A. D. Twyeffort is president and S. J. Burtis is secretary and treasurer, has been named retail sales representative of the Willys-Overland Company in the various parts of Queens. New showrooms are to be opened at 216-10 Jamaica Ave., Queens Village, and at 112-01 Liberty Ave., Richmond Hill. The concern also has a salesroom at 139-07 Hillside Ave., and a service station at 129-02 Hillside Ave.

**Jersey City, N. J.,** Sept. 4.—The Dunbar Oldsmobile Company, 3527 Boulevard, Jersey City, has been formed and is authorized to issue $35,700 worth of stock, divided into 350 shares of preferred at $100 each and 700 shares of common with par value of $1 each. The incorporators are A. F. McCabe, R. F. Lewis and W. Varndell, all of Jersey City.

# Final Revision, Complete, New Commercial Car Registration Statistics, July, 1930

**Returns for today: California, Colorado, Georgia, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Mississippi, New Mexico, New York, Tennessee, Texas, Virginia, Wyoming.**

**Some of this data has been published previously, but it is given here complete for the convenience of our subscribers.**

**Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Readers desiring county, city or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies.** **Comparative statistics for June, 1929, will be found on Page 6.** **Commercial Car Registrations do not include buses.**

| States | Autocar | Brockway-Indiana | Chevrolet | Diamond-T | Dodge | Essex | Fargo | Federal | Ford | G. M. C. | International | Mack | Paige | Relay | Reo | Republic | Rugby | Sterling | Stewart | Studebaker | Whippet | White | Willys | Willys-Knight | Miscellaneous | Totals | States |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alabama | | | 136 | | 1 | | | 1 | 178 | 5 | 4 | 2 | | | 3 | | | | | | | 2 | 1 | | 1 | 334 | Alabama |
| Arizona | | | 26 | | 7 | | | | 86 | 2 | 3 | 1 | | | 1 | | 1 | | 4 | 2 | | 1 | | | | 134 | Arizona |
| Arkansas | | 2 | 236 | | 4 | | 1 | | 310 | 6 | 38 | 1 | | | 1 | | | | | | 2 | 6 | | | 1 | 608 | Arkansas |
| California | 14 | 4 | 526 | 7 | 94 | 1 | 3 | 12 | 1387 | 77 | 55 | 18 | 3 | 1 | 77 | 3 | 9 | 23 | 6 | 12 | 3 | 37 | 3 | 2 | 97 | 2474 | Calif. |
| Colorado | | 5 | 198 | | 9 | | 3 | | 280 | 17 | 34 | 6 | | | 3 | | 2 | | | 1 | 7 | | 8 | 1 | 16 | 590 | Colorado |
| Conn. | 2 | 9 | 109 | 7 | 32 | 2 | | 5 | 216 | 16 | 21 | 20 | 2 | 1 | 18 | | | 2 | 14 | 4 | | 3 | 1 | 1 | 11 | 496 | Conn. |
| Delaware | 1 | 2 | 32 | | 2 | | | | 56 | 7 | 6 | | | | 1 | | | | 1 | | 1 | 1 | 1 | | | 111 | Delaware |
| Florida | | 7 | 99 | | 3 | 1 | | | 233 | 2 | 19 | 3 | | | 3 | | 1 | | | | | 5 | 2 | | | 378 | Florida |
| Georgia | 1 | 11 | 65 | | 4 | | | 6 | 136 | 3 | 11 | 2 | | | 2 | | | | | | 1 | 2 | 2 | 1 | | 247 | Georgia |
| Idaho | | | 52 | | 8 | | | | 92 | 13 | 12 | | | | 4 | 1 | 1 | | | | | 1 | 1 | 2 | 2 | 189 | Idaho |
| Illinois | 5 | 16 | 516 | 41 | 50 | | 2 | 14 | 874 | 34 | 110 | 17 | 2 | | 19 | 2 | | 8 | 1 | | 8 | 21 | 21 | | 60 | 1821 | Illinois |
| Indiana | | 11 | 132 | 2 | 12 | 3 | | 2 | 335 | 19 | 59 | | 1 | | 6 | | | | 12 | 3 | 3 | | 2 | 1 | 2 | 605 | Indiana |
| Iowa | | 1 | 283 | 9 | 22 | | 2 | 1 | 368 | 13 | 108 | 5 | 1 | | 16 | | | | | 1 | 1 | 1 | 9 | 2 | 1 | 844 | Iowa |
| Kansas | | 2 | 1069 | 4 | 49 | 1 | 25 | | 941 | 37 | 182 | 3 | 1 | | 13 | 4 | 2 | | 8 | 4 | 2 | 3 | 9 | 42 | 6 | 2407 | Kansas |
| Kentuky | | 4 | 124 | 3 | 9 | 1 | 2 | 2 | 224 | 8 | 46 | 5 | | 2 | 12 | | | | | | 3 | 4 | 2 | | 2 | 453 | Kentucky |
| Louisiana | | | 135 | | 4 | | | | 220 | 6 | 18 | 2 | | | 2 | | 1 | | | | | 6 | | | 7 | 401 | Louisiana |
| Maine | 1 | | 138 | | 16 | | | | 245 | 7 | 31 | 5 | | | 8 | | | | | | 3 | | 4 | | | 458 | Maine |
| Maryland | 5 | 8 | 105 | 11 | 6 | | 3 | 1 | 244 | 5 | 22 | 20 | | | 4 | 2 | | 2 | 6 | 2 | | 16 | 1 | 1 | 5 | 469 | Maryland |
| Mass'setts | 20 | 24 | 219 | 17 | 62 | 4 | 4 | 7 | 674 | 35 | 43 | 47 | 1 | | 34 | | 2 | 20 | 5 | 2 | 3 | 23 | 2 | 2 | 16 | 1266 | Mass. |
| Michigan | 1 | | 213 | 4 | 19 | 1 | 2 | 18 | 725 | 22 | 48 | 5 | 1 | | 19 | 4 | 4 | 3 | 3 | 1 | 4 | 6 | 8 | 2 | 15 | 1128 | Michigan |
| Minnesota | | 3 | 255 | 11 | 22 | 1 | 7 | 4 | 502 | 21 | 94 | 2 | 1 | | 18 | | 1 | | | 1 | 5 | 2 | 21 | | 11 | 982 | Minn. |
| Mississippi | | | 273 | | 7 | | | 1 | 275 | 5 | 33 | 3 | | | 1 | 1 | | | | 2 | 1 | 1 | | | | 603 | Miss. |
| Missouri | 5 | 8 | 269 | 9 | 25 | 1 | 3 | 4 | 358 | 14 | 70 | 13 | 3 | | 8 | | 1 | 2 | 1 | 1 | 5 | 2 | 3 | | 17 | 822 | Missouri |
| Montana | | | 68 | | 3 | 1 | 1 | 1 | 123 | 3 | 33 | | | | 5 | | 1 | | | | 2 | 1 | 1 | | | 243 | Montana |
| Nebraska | | | 275 | 3 | 15 | | 1 | 1 | 367 | 7 | 87 | 2 | 2 | | 4 | | | | | 1 | | 2 | 9 | 1 | 8 | 785 | Nebraska |
| Nevada | | | 17 | | 8 | | 1 | | 46 | 2 | 3 | | | | 2 | | | | | 1 | 1 | 1 | | | 2 | 84 | Nevada |
| N. Hamp. | | 1 | 39 | 5 | 6 | | | | 121 | 4 | 5 | 7 | | | 5 | | 2 | | 1 | 1 | | 1 | 1 | | 3 | 202 | N. Hamp. |
| New Jersey | 14 | 30 | 265 | 13 | 42 | 3 | 3 | 7 | 616 | 37 | 34 | 27 | 1 | 3 | 18 | 2 | 2 | 4 | 13 | 4 | 2 | 29 | | 2 | 30 | 1201 | N. Jersey |
| N. Mexico | | 9 | 108 | | 4 | | 3 | | 116 | 2 | 8 | | | | 2 | | 1 | | | | | 3 | 2 | | | 258 | New Mex. |
| New York | 63 | 162 | 994 | 126 | 173 | 11 | 21 | 30 | 2354 | 162 | 281 | 221 | 2 | 15 | 105 | 1 | 5 | 18 | 134 | 15 | 16 | 93 | 10 | 8 | 165 | 5185 | New York |
| N. Carolina | 1 | | 224 | 1 | 11 | | 3 | 3 | 364 | 4 | 14 | 2 | 2 | | 2 | | | | | | 1 | 2 | 6 | | 4 | 644 | N. Car. |
| N. Dakota | | | 50 | 3 | 2 | | 1 | | 74 | 1 | 46 | | | | 5 | | 2 | | | | | | 2 | | | 186 | N. Dakota |
| Ohio | 14 | 13 | 345 | 10 | 59 | 5 | 1 | 9 | 901 | 42 | 121 | 12 | 2 | 4 | 22 | 1 | 5 | 1 | 11 | 4 | 9 | 55 | 15 | 2 | 53 | 1716 | Ohio |
| Oklahoma | 1 | 5 | 368 | | 25 | | 3 | 13 | 471 | 21 | 71 | 12 | | | 5 | | 6 | | | 2 | 3 | 8 | 10 | | 2 | 1026 | Oklahoma |
| Oregon | 4 | | 117 | | 14 | 5 | 1 | 11 | 417 | 15 | 38 | 17 | 1 | | 7 | 3 | 5 | 4 | | 3 | | 14 | 2 | 2 | 21 | 701 | Oregon |
| Penn'vania | 29 | 23 | 413 | 8 | 102 | 6 | 9 | 14 | 1088 | 36 | 129 | 63 | 5 | 9 | 39 | 4 | 3 | 5 | 32 | 7 | 16 | 31 | 4 | 5 | 28 | 2108 | Penna. |
| Rh. Island | 3 | 3 | 41 | 2 | 4 | | 2 | 1 | 124 | 9 | 5 | 1 | | | 3 | | | 1 | 1 | 1 | | 2 | | | | 203 | R. Island |
| S. Carolina | | 1 | 125 | | | | | 2 | 171 | 3 | 10 | | | | | | | | | | | 1 | | | 12 | 325 | S. Car. |
| S. Dakota | | 3 | 71 | 6 | 7 | | 1 | | 126 | 3 | 50 | | | | 5 | | 1 | | | | 2 | | 5 | | 1 | 281 | S. Dakota |
| Tennessee | | | 211 | 3 | 16 | | 1 | 10 | 290 | 25 | 26 | 9 | 3 | | 7 | 1 | | | | 1 | 2 | 6 | 3 | 1 | 3 | 618 | Tennessee |
| Texas | 3 | 2 | 715 | 3 | 28 | | 5 | 6 | 974 | 18 | 151 | 6 | 1 | | 22 | | 2 | | 2 | 4 | 4 | 23 | 7 | | 5 | 1981 | Texas |
| Utah | | | 48 | | 4 | | 1 | | 127 | 4 | 6 | 1 | | | 1 | | | | | | | | | | 4 | 196 | Utah |
| Vermont | | 1 | 29 | | 6 | | | | 73 | 2 | 42 | 1 | | | 6 | | | | 2 | | | 1 | | 1 | | 164 | Vermont |
| Virginia | 2 | 2 | 239 | | 4 | 1 | | 9 | 333 | 11 | 17 | 5 | | 1 | | 5 | | | 1 | | 2 | 6 | 5 | | 23 | 666 | Virginia |
| Wash'ton | | | 203 | | 13 | | 4 | | 443 | 33 | 45 | 7 | | | 13 | | 7 | 2 | | 2 | | 20 | 4 | | 34 | 830 | Wash'ton. |
| W. Virginia | | 6 | 144 | 3 | 17 | | | 2 | 202 | 17 | 42 | | | 3 | 8 | 1 | 3 | | | 2 | | 2 | 4 | | 8 | 464 | West Va. |
| Wisconsin | | 8 | 564 | 23 | 40 | 2 | 4 | 11 | 784 | 37 | 125 | 4 | | 2 | 23 | | | 4 | 8 | 4 | 9 | 3 | 24 | 1 | 21 | 1701 | Wisconsin |
| Wyoming | | | 39 | | 6 | | 1 | | 63 | 3 | 8 | | | | 1 | | | | | | | 2 | | | 1 | 124 | Wyoming |
| Dist. of Col. | 5 | | 27 | 3 | 2 | | | | 105 | 6 | 7 | | | | 1 | | | 1 | | | | 3 | | | 5 | 165 | D. of Col. |
| Totals | 194 | 386 | 10949 | 337 | 1078 | 50 | 124 | 208 | 19832 | 881 | 2471 | 577 | 35 | 41 | 584 | 35 | 70 | 100 | 266 | 88 | 121 | 452 | 215 | 80 | 703 | 39877 | Totals |

**FORD DEALER CHARTERED**

**New Haven, Conn.,** Sept 4.—City Motor Sales, 635 State St., Ford dealership, has filed incorporation papers.


A notable record for sturdy efficiency, for lack of trouble, in every type of commercial service. . . . .

WISCONSIN AXLES

WISCONSIN AXLE CO.
Oshkosh Wisconsin


# New Dealer Appointments By States and Makes

**NEBRASKA**

**Reo**—R. H. Musselman, Albion.

**Hupmobile**—Max von Goetz (distributor), North Platte; J. R. O'Neal, Inc., (distributor) Omaha; National Motor Car Company, Lincoln.

**NEW HAMPSHIRE**

**Hupmobile**—Baldwin Auto Company, Colebrook.

**NEW JERSEY**

**Graham-Paige** — Allen's Service Station, Danville.

**Durant**—George Histand, Mantua.

**NEW YORK**

**Graham-Paige** — Rudolph Motor Company, Inc., New Brighton; Engle Court Motor Sales, Princess Bay.

**Studebaker**—P. J. Hoban, Naples; Van Buren Motors, Troy; Tucker's Garage, Antwerp; F. W. Lamphere, Weedsport.

**Durant** — Utica Auto Exchange (distributor), Utica.

**Hupmobile** — Crown Garage, Crown Point.

**NORTH CAROLINA**

**Studebaker**—Adrian C. McManus, Inc., Greensboro.

**NORTH DAKOTA**

**Nash**—T. Thronson, Ross.

**Graham-Paige** — **Ed. M. Holton,** New Rockford; August Lehman, Willow City.

**OHIO**

**Peerless**—Earl Griesheimer, Portsmouth.

**Nash**—R. M. Dickerson Nash Sales Company, Cadiz.

**Graham-Paige** — Bennett Motor Sales Company, Cherry Grove; The H. & T. Auto Company, Cincinnati.

**Studebaker**—Lippert Motor Company, Norwalk; J. H. Percy & Son, Painesville; Zimmerman Motor Sales, Greenville; Alfred N. Hohneck; Edwards Motor Car Company, Alliance; Purdy's Garage, Wapakoneta; Coppus Motor Sales, Fostoria.

**PENNSLYVANIA**

**Nash** — J. D. Corbit, Reading; Frankford Nash Motor Company, Inc., Philadelphia.

**Studebaker** — Churchville Motor Company, Churchville.

**Hupmobile** — Max Goetz of Fayetteville; Evaul Brothers, Haddon Heights.

**RHODE ISLAND**

**Studebaker** — Studebaker Sales Company of Rhode Island, Providence; William A. Munroe, Edgewood.

**SOUTH DAKOTA**

**Studebaker**—Herrick Motor Company, Mitchell.

**TEXAS**

**Studebaker** — Wood Auto Company, Denison; Ball & Ball Motor Company, Brownwood; Wood Auto Company, Sherman; Vollmer C. Roberts, Harlingen; Friedlander Motor Company, Calvert; Advance Motor Company; Fredericksburg.

**WASHINGTON**

**Studebaker** — Parrott's Garage, Kelso.

**Marmon-Roosevelt**—H. J. McDonald, Seattle.

**Hupmobile** — Transport Corporation of Spokane (distributor), Spokane; Miller-Burkman, Inc., Tacoma.

**WEST VIRGINIA**

**Studebaker**—New Century Garage, Romney.

**Hupmobile** — Earl C. McClure, Fort Gay.

**WISCONSIN**

**Nash** — Mike's Garage, Avoca; John H. Pick & Son, Cross Plains; H. Petrus, Highland.

**Studebaker**—Poutsch Auto Company, Fort Atkinson; Hafemeister-Solon Company, Watertown; Crescent Garage, Mayville; Sandley's Garage, Black Earth; Zenoff Motor Sales Company, Chippewa Falls.

**Durant**—C. F. Knight Company, Dalton.

**Hupmobile**—George D. Keating, Inc., Madison.

## Personal Briefs

**Fon du Lac, Wis.,** Sept. 4.—D. E. Moulton has been named sales manager for the Vincent Anderson Motor Company, local Hudson-Essex dealer. Mr. Moulton was formerly in charge of truck sales for the Hamernik Motor Company. In addition to the Fond du Lac salesrooms Mr. Moulton will also supervise the business of the Vincent Anderson agency in Chilton.

**Indianapolis, Ind.,** Sept. 4.—Dave Hurley, who has been connected with the automotive industry since Haynes built the first car, has been appointed service manager of Reo Indiana Sales, Inc., Reo distributor here.

**Buffalo, N. Y.,** Sept. 4.—George C. Brown, for the past fifteen years general manager for the Paige Sales Company, Inc., has been appointed to a similar post with the Avenue Motor Corporation, Chrysler-Plymouth dealership, with headquarters at 2300 Delaware Ave.


CLARK

WE could build more, but not better axles than our present

CLARK AXLES

Production demands of the larger passenger vehicle and truck manufacturers have increased our axle production schedules steadily. This marks an ever-growing appreciation of the standard to which we build.

The same precision of design and workmanship produces

CLARK METAL WHEELS

with Strength of Steel.

CLARK EQUIPMENT COMPANY
Buchanan Michigan

AXLES
Front & Rear
WHEELS
Single or Dual Tire
CAST STEEL HOUSINGS
TRANSMISSIONS


# Complete New Commercial Car Registration Statistics, July, 1929

**This table is repeated for comparative purposes only. July, 1930, statistics appear on Page 5.**

| States | Autocar | Brockway-Indiana | Chevrolet | Diamond-T | Dodge | Essex | Fargo | Federal | Ford | G. M. C. | International | Mack | Paige | Relay | Reo | Republic | Rugby | Sterling | Stewart | Studebaker | Whippet | White | Willys | Willys-Knight | Miscellaneous | Totals | States |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ala., 1929 | | 2 | 386 | | 12 | | 1 | 1 | 254 | 1 | 25 | | | | 1 | | | | | | 13 | 6 | | | 2 | 704 | Ala., 1929 |
| Ariz., 1929 | | | 71 | | 13 | | 1 | | 96 | 12 | 6 | 1 | | | 4 | | 3 | | | 2 | 2 | 2 | | | | 213 | Ariz., '29 |
| Ark., 1929 | | 5 | 400 | | 26 | | 8 | | 513 | 12 | 83 | 1 | | | 4 | | 1 | | | 4 | 15 | 3 | | | 11 | 1086 | Ark., 1929 |
| Cal., 1929 | 18 | | 475 | | 238 | | 24 | 27 | 1558 | 88 | 56 | 37 | | | 95 | 3 | 17 | 28 | 6 | 22 | 5 | 37 | | 1 | 227 | 2962 | Cal., 1929 |
| Col., 1929 | | | 278 | | 27 | | 16 | 5 | 279 | 31 | 46 | 1 | | | 4 | | 7 | | | 2 | 14 | 4 | | | 3 | 717 | Col., 1929 |
| Conn., '29 | 5 | 9 | 161 | 15 | 52 | | 3 | 8 | 234 | 27 | 33 | 48 | | 5 | 43 | | 1 | 1 | 15 | 3 | 13 | 6 | | 4 | 14 | 700 | Conn., '29 |
| Del., 1929 | 2 | 1 | 57 | | 4 | | | | 67 | 10 | 10 | | | | 1 | | | | | | 1 | | | 1 | | 154 | Del., 1929 |
| Fla., 1929 | | 3 | 168 | | 19 | | | | 351 | 10 | 17 | 1 | | | 8 | | | | | 2 | 3 | 7 | | | | 589 | Fla., 1929 |
| Ga., 1929 | 1 | 4 | 143 | | 14 | | 2 | | 188 | 11 | 20 | 3 | | | | | | | | 1 | 5 | 5 | | | | 397 | Ga., 1929 |
| Idaho, '29 | | | 75 | 1 | 10 | | 2 | | 64 | 5 | 10 | | | | 10 | | 2 | | | | 2 | 4 | | | 2 | 187 | Idaho, '29 |
| Ill., 1929 | 12 | 14 | 791 | 88 | 159 | | 27 | 12 | 1149 | 49 | 195 | 31 | | 2 | 46 | 1 | | 10 | 3 | | 51 | 23 | | | 124 | 2787 | Ill., 1929 |
| Ind., 1929 | | 36 | 418 | 9 | 72 | | 6 | 6 | 694 | 46 | 75 | | | 4 | 48 | | 1 | | 5 | 10 | 36 | 4 | | | 10 | 1480 | Ind., 1929 |
| Iowa, 1929 | | 4 | 455 | 6 | 46 | | 6 | 4 | 435 | 13 | 142 | 5 | | 1 | 39 | | 2 | | 1 | 1 | 33 | 5 | | 2 | 7 | 1207 | Iowa, '29 |
| Kan., 1929 | | 7 | 1891 | 3 | 139 | | 34 | | 1546 | 87 | 415 | 2 | | 1 | 45 | 4 | 5 | | 5 | 8 | 127 | 3 | | 11 | 11 | 4344 | Kan., 1929 |
| Ky., 1929 | | 6 | 145 | 1 | 15 | | 4 | | 186 | 10 | 33 | 5 | | 1 | 11 | 2 | | | | 2 | 9 | 5 | | 2 | 6 | 443 | Ky., 1929 |
| La., 1929 | | 6 | 326 | | 18 | | | | 386 | 14 | 70 | 7 | | | 3 | | | | | | 4 | 5 | | 1 | | 840 | La., 1929 |
| Me., 1929 | 1 | 2 | 167 | 2 | 38 | | 1 | | 165 | 6 | 19 | 4 | | | 24 | | 1 | 1 | | 2 | 3 | 1 | | 2 | 7 | 446 | Me., 1929 |
| Md., 1929 | 17 | 6 | 179 | 7 | 28* | | 2 | 2 | 282 | 19 | 51 | 15 | | | 28 | | 1 | 3 | 3 | | 5 | 15 | | 1 | 25 | 689 | Md., 1929 |
| Mass., 1929 | 20 | 23 | 293 | 27 | 113 | | 26 | 17 | 601 | 87 | 69 | 34 | | | 82 | 1 | 2 | 24 | 13 | 4 | 10 | 20 | | 2 | 21 | 1489 | Mass., '29 |
| Mich., '29 | 3 | 4 | 621 | | 85 | | 8 | 29 | 1303 | 92 | 108 | 16 | | 3 | 69 | 4 | 3 | | | 1 | 41 | 5 | | 3 | 31 | 2429 | Mich., '29 |
| Minn., 1929 | | | 339 | 3 | 48 | | 8 | 11 | 471 | 28 | 95 | 4 | | | 25 | | 1 | | | 4 | 26 | 15 | | | 20 | 1098 | Minn., '29 |
| Miss., 1929 | | 3 | 350 | | 8 | | 1 | | 368 | 7 | 41 | 1 | | | 2 | | 4 | | | 1 | 6 | | | | | 792 | Miss., '29 |
| Mo., 1929 | 4 | 6 | 325 | 12 | 53 | | 5 | 2 | 431 | 31 | 48 | 14 | | | 14 | 1 | 1 | 3 | | 2 | 26 | 5 | | | 5 | 988 | Mo., 1929 |
| Mont., 1929 | | | 51 | | 12 | | 2 | | 131 | 4 | 27 | | | | 4 | 1 | 1 | | | 2 | 3 | 4 | | | | 242 | Mont., '29 |
| Neb., 1929 | | | 497 | 6 | 29 | | 10 | 2 | 409 | 21 | 105 | | | | 7 | 1 | 5 | | | 4 | 31 | 3 | | | 12 | 1142 | Neb., 1929 |
| Nev., 1929 | | | 24 | | 8 | | 3 | 1 | 80 | 4 | 5 | 1 | | | 1 | | 2 | | | | | | | | 2 | 131 | Nev., 1929 |
| N. H., 1929 | 1 | 6 | 71 | 1 | 18 | | 1 | 2 | 133 | 9 | 15 | 3 | | | 12 | | 1 | 1 | 1 | 1 | 3 | 2 | | | 1 | 282 | N. H., '29 |
| N. J., 1929 | 26 | 25 | 425 | 10 | 124 | | 16 | 19 | 780 | 68 | 37 | 64 | | | 57 | 1 | 3 | 7 | 8 | 12 | 13 | 33 | | 8 | 62 | 1798 | N. J., 1929 |
| N. M., 1929 | | 1 | 141 | | 14 | | 10 | | 122 | 3 | 32 | | | | 3 | | | | | | 19 | 4 | | | | 349 | N. M., '29 |
| N. Y., 1929 | 81 | 243 | 1397 | 67 | 436 | | 100 | 45 | 2459 | 182 | 297 | 223 | | 21 | 209 | 5 | 13 | 26 | 126 | 23 | 55 | 111 | | 3 | 229 | 6351 | N. Y., '29 |
| N. C., 1929 | 2 | 3 | 461 | | 50 | | 6 | | 495 | 15 | 25 | 7 | | | 2 | 1 | | | 3 | 3 | | 8 | | | 10 | 1091 | N. C., 1929 |
| N. Dak., '29 | | | 100 | 1 | 13 | | 5 | 1 | 98 | 5 | 70 | | | | 2 | | | | | | 1 | | | | 2 | 298 | N. D., 1929 |
| Ohio, 1929 | 27 | 36 | 608 | 7 | 126 | | 20 | 13 | 1074 | 85 | 168 | 19 | | 3 | 61 | 1 | 3 | 9 | 4 | 13 | 62 | 48 | | 4 | 64 | 2455 | Ohio, '29 |
| Okla., '29 | 2 | 15 | 745 | 3 | 54 | | 13 | 6 | 741 | 25 | 181 | 8 | | | 23 | | 1 | | 1 | 4 | 32 | 12 | | 2 | 7 | 1875 | Okla., '29 |
| Ore., 1929 | | | 312 | | 30 | | 6 | 14 | 437 | 22 | 61 | 13 | | | 23 | 1 | 12 | 8 | | 2 | 8 | 12 | | | 17 | 978 | Ore., 1929 |
| Penn., '29 | 69 | 38 | 716 | 19 | 223 | | 37 | 19 | 1195 | 80 | 134 | 51 | | 10 | 87 | | 5 | 35 | 32 | 8 | 54 | 54 | | 5 | 51 | 2922 | Pa., 1929 |
| R. I., 1929 | 3 | 1 | 68 | | 26 | | 1 | 2 | 88 | 17 | 6 | 13 | | | 29 | | 3 | 4 | 5 | 2 | 3 | 3 | | | 5 | 279 | R. I., 1929 |
| S. Car., '29 | | 16 | 200 | | 9 | | 10 | 3 | 224 | 5 | 12 | 2 | | | 1 | 1 | 1 | | 1 | 1 | 4 | 2 | | | 4 | 496 | S. C., 1929 |
| S. Dak., '29 | | | 203 | 1 | 19 | | 2 | 1 | 175 | 12 | 103 | 1 | | | 12 | | 1 | | | 3 | 10 | 1 | | 1 | 2 | 547 | S. D., '29 |
| Tenn., 1929 | | 2 | 328 | | 34 | | | 3 | 326 | 21 | 33 | 10 | | | 9 | 1 | | | | 3 | 6 | 4 | | 1 | 4 | 785 | Tenn., '29 |
| Tex., 1929 | 10 | 25 | 1759 | 1 | 119 | | 23 | 4 | 1646 | 76 | 432 | 11 | | | 45 | | 6 | | 2 | 5 | 77 | 21 | | 2 | 9 | 4273 | Tex., 1929 |
| Utah, 1929 | | | 53 | | 13 | | | | 101 | 8 | 7 | | | | 5 | | 2 | | | 1 | 2 | | | | | 192 | Utah, '29 |
| Vt., 1929 | | 1 | 33 | 1 | 7 | | 3 | 1 | 49 | 5 | 15 | 18 | | | 3 | | | | | | 1 | 2 | | | 3 | 142 | Vt., 1929 |
| Va., 1929 | | 8 | 235 | 1 | 37 | | 1 | 1 | 300 | 19 | 43 | 4 | | | 20 | 1 | 2 | | 5 | 1 | 11 | 6 | | | 1 | 696 | Va., 1929 |
| Wash., 1929 | | | 337 | | 48 | | 11 | 5 | 580 | 23 | 71 | 8 | | | 29 | 3 | 11 | | | 5 | 15 | 24 | | 1 | 40 | 1211 | Wash., '29 |
| W. Va., '29 | | 8 | 202 | 3 | 45 | | 2 | 3 | 260 | 18 | 48 | | | 2 | 16 | 1 | 1 | | 5 | 3 | 5 | 5 | | 1 | 7 | 635 | W. Va., '29 |
| Wis., 1929 | 1 | | 499 | 15 | 64 | | 10 | 8 | 746 | 39 | 121 | 5 | | 2 | 54 | | 3 | 17 | 8 | 2 | 35 | 8 | | 1 | 24 | 1662 | Wis., 1929 |
| Wyo., 1929 | | | 37 | | 18 | | | | 75 | 1 | 11 | | | | 2 | | | | | 2 | 4 | 3 | | | | 153 | Wyo., 1929 |
| D. of C., '29 | 1 | 2 | 35 | 5 | 2 | | | | 137 | 6 | 4 | 1 | | | 4 | | | | 2 | | 3 | 14 | | | 3 | 219 | D. C., '29 |
| Totals | 306 | 571 | 18051 | 315 | 2815 | * | 477 | 277 | 24482 | 1469 | 3730 | 692 | * | 55 | 1326 | 34 | 128 | 177 | 254 | 171 | 907 | 564 | * | 59 | 1085 | 57945 | Totals |

*Not in production at that time.

# Gardner Announces New Eight for 1931

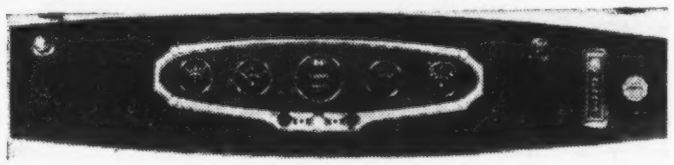
(Continued from Page 1)

models in series "148" are doine in a wide variety of colors to harmonize with the design of the cars and their exterior adornment. Quarter windows are fully curtained. Arm rests on front doors are a comfort feature. Butler finished hardware adds a pleasing touch to the interiors.

The 1931 Gardners, from a mechanical standpoint, are basically the same as the company's 1930 line. However, there have been several mechanical changes which materially increase riding and driving comfort. These include rubber motor mounting, and noiseless rubber-mounted spring shackles, which require no lubrication, and the four-speed transmission.

The power plant is a Gardner-Lycoming eight-in-line yellow-head engine of the L-head type, with a bore of 2⅞ inches, and a stroke of 4¾ inches. Rated horsepower is 26.45, developing 100 horsepower at 3,300 revolutions per minute. Dual carburetion, duplex manifolding and the use of Bohnalite Invar strut pistons are featured. Piston displacement is 246.6 cubic inches.

The steering gear is of the new Ross semi-irreversible open end cam and lever type. A full 18-inch hard rubber, three spoke, steel insert steering wheel is used.



Instrument panel of the Gardner straight eight for 1931.

The fan is 17-inch oil-bearing type.

The clutch is of the Borg & Beck dry disc type with ball bearing clutch pilot.

The transmission used is the selective sliding gear type with nickel steel gears, for speeds forward and one reverse.

Lockheed fully enclosed four-wheel hydraulic brakes operated internally with compensating cylinder are used. The motor is lubricated by full force feed through a gear driven pump.

The chassis is lubricated by means of Alemite fittings.

The wheel base is 125 inches.

Six-inch tires, spare tire, tube and cover, rim and tire carrier on rear are part of the standard equipment.

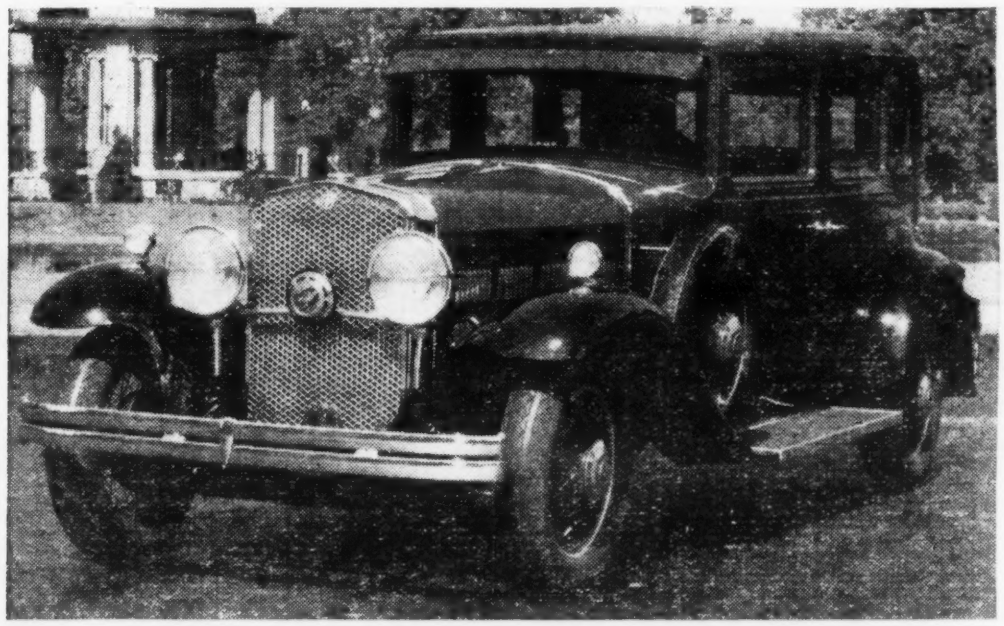
The standard equipment includes bumpers front and rear, fender lamps, electric gasoline gauge, speedometer, heat indicator, oil gauge and ammeter, treadle-type foot accelerator, adjustable top cowl ventilator, automatic windshield wiper, rear-vision mirror, tools, jack, grease gun, air cleaner, oil cleaner, gasoline cleaner, thermostat, Fedco number plate with loss-of-use insurance, Lovejoy shock absorbers, front and rear; ignition lock, starting button on instrument board, non-glare lenses with double filament bulbs in head lamps, side cowl ventilators.

In addition to the above, closed models are equipped with robe rail and footrest, exterior sun visor, ash tray, cigar lighter, dome light, curtains on rear and quarters, toggle grips.

Roadsters are equipped with full chromium wind shield stanchions and top brackets, side curtains and top boot, detachable top and cigar lighter. All exterior parts are chromium plated.

Group B equipment includes extra quality Chase mohair (choice of broadcloth), Crowell ventilating window, electric clock, cowl bar insert, corner lamps, wainscoat paneling, adjustable front seat on closed models, rubber pedal pads. Large hub, concealed bolt type wire wheels, fender well mounting and rear folding trunk rack available.

In addition to the model "148," Gardner's 1931 line includes a 130-inch wheel base straight eight model "158" and a 122-inch wheel base six.



Front three-quarter view of Gardner straight eight sedan for 1931

## SAN FRANCISCO FORD DEALER IN NEW HOME

San Francisco, Sept. 4 (UTPS).—Kresteller Motor Company, Ford dealer at 2001 Market St., has opened new showrooms and is attracting public interest by the modernistic decorative effects presented. The exterior of the building has been finished in silver trimmed with black; the interior is a combination of pastel shades blending in pleasing harmony with the silver and black trim of guard rails of the stairway and mezzanine floor. A mural painting at the head of the stairs commands the entire display room.

The firm has also added additional equipment in the service department, which now occupies 46,000 square feet of floor area. J. L. Vogel, general manager of the company, says that more than $20,000 has been expended in the remodeling and he considers the money well spent.

### GETS FORD FRANCHISE

Albemarle, N. C., Sept. 4.—The Auten-Wolfe Motor Company has acquired the Ford franchise, which has been held for sixteen years by the Stanley Auto Company.

Standard and Special Transmissions . . . for Trucks, Buses, Taxicabs
FULLER makes both standard and special transmissions for trucks, buses, taxicabs . . . or any other type of automotive transportation equipment.
If you are experiencing transmission difficulties . . . it's a safe bet that Fuller engineers can help you. Twenty-eight years of well-rounded experience, devoted to the development, manufacture, and use of transmissions, are at your service.
Fuller engineers will gladly go anywhere for conference when either standard or special transmissions are being considered by manufacturers for their equipment . . . and we are always glad to give any assistance possible to distributors, dealers, service stations . . . by correspondence.
FULLER & SONS MFG. CO.
MILWAUKEE WISCONSIN
Division of Unit Corporation of America
FULLER TRANSMISSIONS


## New Commercial Car Registrations for First Seven Months 1930, by Months

| | Autocar | Brockway Indiana | Chevrolet | Diamond-T | Dodge | Essex | Fargo | Federal | Ford | G. M. C. | International | Mack | Paige | Relay | Reo | Republic | Rugby | Sterling | Stewart | Studebaker | Whippet | White | Willys | Willys-Knight | Miscellaneous | Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 158 | 247 | 8759 | 251 | 1608 | 50 | 186 | 169 | 13244 | 731 | 1837 | 344 | * | 25 | 698 | 28 | 83 | 146 | 95 | 100 | 241 | 413 | 130 | 62 | 669 | 30274 | January |
| February | 135 | 235 | 10327 | 207 | 1267 | 58 | 152 | 162 | 14198 | 535 | 1927 | 298 | * | 26 | 565 | 31 | 67 | 74 | 155 | 86 | 220 | 318 | 160 | 44 | 599 | 31846 | February |
| March | 195 | 384 | 13011 | 264 | 1595 | 65 | 156 | 228 | 19546 | 936 | 2364 | 452 | 52 | 46 | 682 | 43 | 59 | 106 | 265 | 99 | 223 | 408 | 246 | 88 | 675 | 42188 | March |
| April | 216 | 492 | 14054 | 300 | 1682 | 84 | 153 | 252 | 21733 | 1242 | 2739 | 566 | 73 | 61 | 903 | 35 | 46 | 147 | 314 | 95 | 198 | 480 | 298 | 67 | 768 | 46997 | April |
| May | 212 | 542 | 12790 | 373 | 1504 | 59 | 152 | 213 | 19742 | 1191 | 2531 | 717 | 55 | 93 | 738 | 45 | 55 | 147 | 306 | 112 | 168 | 452 | 216 | 71 | 720 | 43204 | May |
| June | 182 | 479 | 9762 | 261 | 1112 | 56 | 118 | 158 | 15661 | 889 | 1915 | 446 | 19 | 44 | 582 | 42 | 52 | 109 | 207 | 101 | 105 | 412 | 200 | 47 | 556 | 33515 | June |
| July | 194 | 386 | 10949 | 337 | 1078 | 50 | 124 | 208 | 19832 | 881 | 2471 | 577 | 33 | 41 | 584 | 35 | 70 | 100 | 266 | 88 | 121 | 452 | 215 | 80 | 705 | 39877 | July |
| Totals | 1292 | 2765 | 79652 | 1993 | 9846 | 422 | 1041 | 1390 | 123956 | 6405 | 15784 | 3400 | 232 | 336 | 4752 | 259 | 432 | 829 | 1608 | 681 | 1276 | 2835 | 1465 | 459 | 4692 | 267901 | Totals |

*Included in the miscellaneous column.

## New Commercial Car Registrations for First Seven Months of 1929 by Months

| Months | Autocar | Brockway-Indiana | Chevrolet | Diamond-T | Dodge | Dover | Fargo | Federal | Ford | G. M. C. | International | Mack | Paige | Relay | Reo | Republic | Rugby | Sterling | Stewart | Studebaker | Whippet | White | Willys | Willys-Knight | Miscellaneous | Totals | Months |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 128 | 242 | 6250 | 301 | 2424 | * | 179 | 203 | 13441 | 1197 | 2186 | 377 | * | 51 | 932 | 35 | 102 | 100 | 112 | 121 | 221 | 409 | * | 27 | 819 | 29857 | January |
| February | 129 | 246 | 10290 | 277 | 2004 | * | 160 | 189 | 13312 | 1022 | 1937 | 388 | * | 34 | 830 | 34 | 68 | 87 | 134 | 83 | 277 | 339 | * | 35 | 686 | 32561 | February |
| March | 230 | 411 | 16057 | 372 | 2632 | * | 244 | 262 | 17793 | 1327 | 2527 | 648 | * | 42 | 1244 | 26 | 71 | 113 | 172 | 199 | 404 | 510 | * | 45 | 1020 | 46349 | March |
| April | 360 | 525 | 18174 | 345 | 3058 | * | 239 | 286 | 22758 | 1574 | 3425 | 852 | * | 79 | 1520 | 34 | 101 | 157 | 244 | 147 | 414 | 622 | * | 57 | 1294 | 56265 | April |
| May | 335 | 463 | 15961 | 350 | 2843 | * | 272 | 326 | 22352 | 1454 | 3230 | 743 | * | 70 | 1543 | 37 | 122 | 165 | 242 | 149 | 352 | 621 | * | 84 | 1137 | 52851 | May |
| June | 229 | 377 | 13232 | 308 | 2414 | * | 287 | 226 | 19510 | 1314 | 2698 | 693 | * | 64 | 1222 | 37 | 93 | 157 | 173 | 153 | 421 | 505 | * | 52 | 896 | 45061 | June |
| July | 306 | 571 | 18051 | 315 | 2815 | * | 477 | 277 | 24482 | 1469 | 3730 | 692 | * | 55 | 1326 | 34 | 128 | 177 | 254 | 171 | 907 | 564 | * | 59 | 1085 | 57945 | July |
| Totals | 1717 | 2835 | 98015 | 2268 | 18190 | * | 1858 | 1769 | 133648 | 9357 | 19322 | 4393 | * | 395 | 8617 | 237 | 685 | 956 | 1331 | 1023 | 2996 | 3570 | * | 359 | 6937 | 320889 | Totals |

*Not in production at that time.

# MAJOR SPECIFICATIONS AND MECHANICAL DETAILS OF

| Make and Model | Capacity—Tons | Chassis Price | Engine | No. of Cyl. | Bore and Stroke | Tax H. P. | Oil System | Carburetor | Fuel Feed | Ignit. System | Gear Set | Location | No. Spds. For. | Rear Axle | Final Drive | Reduction in Low | Brakes, Foot | Brakes, Hand | Standard Wheel Base | Chassis Weight | Standard Tire Sizes Rear | Front |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Am. La France Chief | 2 | 3650 | Own | 6 | 3¾x5 | 33.0 | Pw | Str | Vac | DR | Own | C | 4 | Tim | Wo | 31.2 | 4 | D | 156 | 6200 | 32x6 | 32x6D |
| Am. La France W | 3-4 | 3950 | Own 2 R | 4 | 4¼x6 | 28.9 | CS | Zen | Vac | AB | Own | C | 4 | Own | 2R | 47.4 | 4 | R | 160 | 7200 | S36x5 | S36x5D |
| Am. La Fran. Chieftain | 3-4 | 5500 | Own | 6 | 4⅛x5⅛ | 40.8 | Pw | Zen | Vac | DR | Own | C | 4 | Tim | Wo | 28.8 | 4 | D | 175 | 7200 | S36x8 | 36x8D |
| Am. La France V | 5 | 5500 | Own 5 R | 4 | 4¾x6 | 36.2 | CS | Zen | Vac | AB | Own | C | 4 | Own | Wo | 54.4 | 4 | R | 165 | 9800 | S36x5 | S40x6D |
| Am. La Fran. Big Chief | 6 | 6725 | Own | 6 | 4½x6 | 48.6 | Pw | Zen | Vac | DR | Own | C | 4 | Own | 2R | 32.8 | 4W | D | 226 | 10600 | S40x8 | S40x8D |
| Am. La France Z | 6½ | 5750 | Own 5 R | 4 | 4¾x6 | 36.2 | CS | Zen | Vac | AB | Own | C | 4 | Own | Wo | 63.5 | 4 | R | 165 | 10000 | S36x7 | S40x7D |
| Am. La France U | 7½ | 6000 | Own 5 R | 4 | 4¾x6 | 36.2 | CS | Zen | Vac | AB | Own | C | 4 | Own | — | 63.5 | 4 | R | 165 | 10500 | S36x7 | S40x8D |
| Austin | — | *499 | Own | 4 | 2.2x3 | 7.8 | — | Til | — | Aut-L | W-G | U | 3 | Sal | Sp | — | 4 | 4 | 75 | — | 3.75x18 | 3.75x18 |
| Autocar A | 1½-2 | 3200 | Own | 6 | 4 x4¾ | 38.4 | Pw | Str | Vac | DR | Br-L 51 | U | 4 | Own SA | Sp | 27.9 | 4 | R | 150 | 5060 | 34x7 | 34x7 |
| Autocar D | 2-2½ | 3500 | Own | 6 | 4 x4¾ | 38.4 | Pw | Str | Vac | DR | Br-L 51 | U | 4 | Own SD | 2R | 33.7 | 4 | R | 150 | 5300 | 34x7 | 34x7D |
| *Autocar SH | 2½-3 | 4300 | Own | 6 | 4¼x4¾ | 43.4 | Pw | Str | Gra | LN | Own T | U | 4 | Own H | 2R | 44.3 | R | R | 114 | 6770 | 34x7 | 34x7D |
| Autocar SCH | 2½-3 | 4300 | Own | 6 | 4¼x4¾ | 43.4 | Pw | Str | Vac | LN | Own T | U | 4 | Own H | 2R | 44.3 | R | D | 157 | 6860 | 34x7 | 34x7D |
| *Autocar H | 3 | 4100 | Own | 4 | 4½x5½ | 32.4 | CS | Str | Gra | AB | Own T | U | 4 | Own H | 2R | 48.6 | R | R | 114 | 6770 | 34x7 | 34x7D |
| *Autocar HS | 3½ | 4600 | Own | 4 | 4½x5½ | 32.4 | CS | Str | Gra | AB | Own T | U | 4 | Own C | 2R | 53.6 | R | R | 114 | 7900 | 40x8 | 40x8D |
| *Autocar SHS | 3-3½ | 4800 | Own | 6 | 4¼x4¾ | 43.4 | Pw | Str | Gra | LN | Own T | U | 4 | Own C | 2R | 53.6 | R | R | 114 | 7900 | 40x8 | 40x8D |
| *Autocar SCHS | 3-3½ | 4800 | Own | 6 | 4¼x4¾ | 43.4 | Pw | Str | Vac | LN | Own T | U | 4 | Own C | 2R | 53.6 | R | D | 157 | 8180 | 40x8 | 40x8D |
| Autocar TEA | 3-3½ | 5350 | Own | 6 | 4¼x4¾ | 43.4 | Pw | Str | Vac | LN | Own T | U | 12 | Own TE | 2R | 101.7 | 4 | D | 192 | 8900 | 36x8 | 36x8D |
| Autocar TFA | 3½-5 | 6100 | Own | 6 | 4½x4¾ | 48.6 | Pw | Str | Vac | LN | Own T | U | 12 | Own TF | 2R | 101.3 | 4 | D | 192 | 9300 | 38x9 | 38x9D |
| Autocar C | 3½-5 | 5500 | Own | 6 | 4½x4¾ | 48.6 | Pw | Str | Vac | LN | Own B | C | 4 | Own C | 2R | 61.7 | R | D | 172 | 9500 | 42x9 | 42x9D |
| Autocar F | 7½ | 6800 | Own | 6 | 4½x4¾ | 48.6 | Pw | Str | Vac | LN | Br-L 70 | C | 7 | Tim | Wo | 94.0 | 4 | D | 173 | 11000 | 36x7S | 40x8DS |
| Autocar G | 10 | 9000 | Own | 6 | 4½x4¾ | 48.6 | Pw | Str | Vac | LN | Br-L 70 | C | 7 | Tim | Wo | 97.7 | WB | D | 171 | 13000 | 36x8 | 36x8D |
| Brockway 65 | 1 | 1195 | Con | 6 | 3⅜x4⅝ | 27.3 | Pw | Zen | Vac | Aut | Br-L | U | 3 | Col | Sp | 21.3 | 4 | Tr | 137 | 3400 | 30x5 | 30x5 |
| Brockway 75 | ¼ | 1290 | Con | 6 | 3⅜x4⅝ | 27.3 | Pw | Zen | Vac | Aut | Br-L | U | 4 | Col | Sp | 25.6 | 4 | Tr | 137 | 3450 | 32x6 | 32x6 |
| Brockway 90 | 1½ | 1525 | Con | 6 | 3⅜x4⅝ | 27.3 | Pw | Zen | Vac | Aut | Br-L | U | 4 | Col | Sp | 25.6 | 4 | Tr | 149 | 3650 | 32x6 | 32x6 |
| Brockway 120 | 2 | 1990 | Con | 6 | 4 x4⅛ | 38.4 | Pb | Zen | P | Aut | Br-L | U | 4 | Tim | Sp | — | 4 | Tr | 156 | 5200 | 32x6 | 32x6D |
| Brockway 140 | 2 | 2495 | Con | 6 | 4 x4⅛ | 38.4 | Pb | Zen | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4HV | D | 156 | 5500 | 32x6 | 32x6D |
| Brockway 170 | 2½ | 3160 | Con | 6 | 4¼x4¾ | 40.8 | Pb | Zen | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4HV | D | 170 | 6800 | 32x6 | 32x6D |
| Brockway 195 | 3 | 3820 | Con | 6 | 4¼x4¾ | 40.8 | Pb | Zen | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4HV | D | 170 | 7500 | 34x7 | 34x7D |
| Brockway 190 | 3 | 4185 | Con | 6 | 4¼x4¾ | 40.8 | Pb | Str | P | Aut | Br-L | C | 7 | Tim | Wo | — | RV | D | 168½ | 7625 | 34x7 | 34x7D |
| Brockway 220 | 3½ | 4560 | Con | 6 | 4⅜x4¾ | 45.9 | Pb | Zen | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4HV | D | 170 | 8200 | 36x8 | 36x8D |
| Brockway 250 | 5 | 5950 | Con | 6 | 4⅜x4¾ | 45.9 | Pb | Str | P | Aut | Br-L | U | 4 | Tim | Wo | — | 4HV | D | 182 | 10000 | 40x8 | 40x8D |
| Brockway 290 | 7½ | 7250 | Con | 6 | 4¾x5¾ | 54.15 | Pw | Str | P | L-N | Br-L | C | 7 | Tim | Wo | — | 4W | D | 182 | 10750 | 38x7 | 40x14S |
| Brockway 640 | 10 | 9700 | Con | 6 | 4¾x5¾ | 54.15 | Pw | Str | P | L-N | Br-L | C | 7 | Tim | Wo | — | 4W | R | 212 | 14000 | 38x7 | 36x10S |
| Chevrolet | ½ | 365 | Own | 6 | 3⅛x3¾ | 26.3 | CS | Car | P | DR | Own | U | 3 | Own | Sp | 13.61 | 4 | R | 107 | 1835 | 4.75x19 | 4.75x19 |
| Chevrolet | 1½ | 520 | Own | 6 | 3⅛x3¾ | 26.3 | CS | Car | P | DR | Own | U | 4 | Own | Sp | 33.46 | 4 | R | 131 | 2375 | 30x5 | 30x5 |
| Commerce Series S 11 | 1 | 1600 | Bud H S 6 | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | Aut | Br-L 20 | U | 4 | Col 54028 | Sp | 25.5 | 4 | D | 142 | 3900 | 30x5P | 30x5P |
| Commerce Series 40 | 1½ | 2990 | Bud D S 6 | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Br-L 35 | U | 4 | Tim 63702 | Wo | 34.8 | 4 | | 168 | 4700 | 34x5P | 34x5D |
| Commerce Series S 11 | 2 | 2030 | Bud H S 6 | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | Aut | Br-L 20 | U | 4 | Tim 54006 | Sp | 29.2 | 4 | | 162 | 4500 | 32x6P | 32x6D |
| Commerce Series 40 | 2 | 3240 | Bud D S 6 | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Br-L 35 | U | 4 | Tim 63702 | Wo | 34.8 | 4 | | 168 | 4900 | 36x6 | 36x6D |
| Commerce Series 40 | 2½ | 3240 | Bud D S 6 | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Br-L 35 | U | 4 | Tim 63702 | Wo | 34.8 | 4 | | 168 | 5100 | 36x6P | 36x6D |
| Commerce Series 60 | 2½ | 4580 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Ful | U | 5 | Tim 65706DH | Wo | 63.0 | 4 | | 175 | 7000 | 36x6P | 36x6D |
| Commerce Series 60 | 3 | 4680 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Ful | U | 5 | Tim 65706DH | Wo | 63.0 | 4 | | 175 | 7100 | 36x6P | 36x6D |
| Commerce Series 80 | 3½ | 5250 | Bud B A 6 | 6 | 4¼x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Br-L | C | 7 | Tim 66700DP | Wo | 98.2 | B | | 175 | 8200 | 36x6S | 36x12S |
| Commerce Series 100 | 5 | 5830 | Bud B A 6 | 6 | 4¼x5¼ | 40.8 | Pb | Zen | Vac | Aut | Br-L | C | 7 | Tim 68700DP | Wo | 95.0 | B | | 175 | 9600 | 36x6S | 40x14S |
| Day Elder 60 | 1 | 1195 | Con 25 A | 6 | 3⅜x4 | 27.3 | Pw | Zen | P | DR | W-G | U | 4 | Tim | Sp | 36.3 | 4 | D | 135 | 3200 | 20x6.50B | 20x6.50B |
| Day Elder 85 | 1½ | 1645 | Con 16 C | 6 | 3⅜x4⅝ | 27.3 | Pw | Zen | P | DR | W-G | U | 4 | Tim | Sp | 42.3 | 4 | D | 135 | 3750 | 20x6B | 20x6.50DB |
| Day Elder 110 | 2 | 2095 | Con 16 C | 6 | 3⅜x4⅝ | 27.3 | Pw | Zen | P | DR | Br-L | U | 4 | Tim | Sp | 36.4 | 4 | D | 156 | 4200 | 20x7B | 20x7DB |
| Day Elder 130 | 2½ | 2895 | Con 16 R | 6 | 4 x4⅛ | 33.4 | Pw | Zen | P | DR | Br-L | U | 4 | Tim | Sp | 33.0 | 4 | D | 150 | 5300 | 20x7.50B | 20x7.50DB |
| Day Elder 160 | 3 | 3695 | Con 18 R | 6 | 4 x4½ | 33.4 | Pw | Zen | P | DR | Br-L | U | 4 | Tim | Wo | 36.1 | 4 | D | 156 | 6900 | 20x7.50B | 20x9DB |
| Day Elder 200 | 4 | 4295 | Con 18 R | 6 | 4 x4½ | 33.4 | Pw | Zen | P | DR | Br-L | U | 4 | Tim | Wo | 43.5 | 4 | D | 156 | 7500 | 20x9B | 20x9DB |
| Day Elder 240 | 5 | 5500 | Con 21 R | 6 | 4⅜x4¾ | 45.9 | Pw | Zen | V | DR | Br-L | C | 4 | Tim | Wo | 50.8 | 4 | D | 162 | 9200 | 38x9P | 38x9DP |
| Day Elder 285 | 8 | 6000 | Con 21 R | 6 | 4⅜x4¾ | 45.9 | Pw | Zen | V | DR | Br-L | C | 7 | Tim | Wo | 71.2 | 6 | D | 164 | 10000 | 20x8.25B | 20x8.25DB |
| Day Elder 345 | 10 | 7500 | Con 21 R | 6 | 4⅜x4¾ | 45.9 | Pw | Zen | V | DR | Br-L | C | 7 | Tim | Wo | 79.9 | 4 | D | 164 | 11700 | 20x9B | 20x9DB |
| Day Elder 402 | 12 | 8500 | Con 16 H | 6 | 4¾x5¾ | 54.2 | Pw | Zen | P | DR | Br-L | C | 7 | Tim | Wo | 84.6 | 4 | D | 164 | 12800 | 20x9.75B | 20x9.75Db |
| Diamond T 200 | 1 | 785 | Bud | 4 | 3¾x4½ | 22.5 | Pw | Zen | P | Aut | W-G | U | 4 | Cla | Sp | — | 4 | D | 128½ | 3050 | 30x5 | 30x5 |
| Diamond T 215 | 1 | 885 | Bud | 6 | 3⅜x4 | 27.3 | Pw | Zen | P | Aut | W-G | U | 4 | Cla | Sp | — | 4 | D | 135⅛ | 3150 | 30x5 | 30x5 |
| Diamond T 290 | 1½ | 1475 | Her WXA 2 | 6 | 3½x4½ | 29.4 | Pb | Zen | Vac | Aut | Cov | U | 4 | Col | Sp | — | 4 | D | 156¼ | 4160 | 30x5 | 30x5D |
| Diamond T 303 | 2 | 1745 | Her WXB | 6 | 3¾x4½ | 33.7 | Pb | Zen | Vac | Aut | Cov | U | 4 | Tim | Sp | — | 4 | D | 160¾ | 4850 | 32x6 | 32x6D |
| Diamond T 551 | 2½ | 2250 | Her WXC | 6 | 4 x4½ | 38.4 | Pb | Zen | Vac | Aut | Cov | U | 4 | Tim | Sp | — | 4 | D | 168 | 5600 | 32x6 | 32x6D |
| Diamond T 503 | 2½ | 2660 | Her WXC | 6 | 4 x4½ | 38.4 | Pb | Zen | Vac | Aut | Cov | U | 4 | Tim | Wo | — | 4 | D | 174 | 6200 | 34x7 | 34x7D |
| Diamond T 506 | 2½ | 2820 | Her WXC | 6 | 4 x4½ | 38.4 | Pb | Zen | Vac | Aut | Cov | U | 4 | Wis | 2R | — | 4 | D | 172½ | 6300 | 34x7 | 34x7D |
| Diamond T 602 | 3 | 3440 | Her YXC | 6 | 4⅜x4¾ | 45.9 | Pb | Zen | Gra | Aut | Cov | C | 4 | Tim | Wo | — | 4 | D | 169½ | 7500 | 36x8 | 36x8D |
| Diamond T 606 | 3 | 3500 | Her YXC | 6 | 4⅜x4¾ | 45.9 | Pb | Zen | Gra | Aut | Cov | U | 4 | Wis | 2R | — | 4 | D | 186 | 7500 | 36x8 | 36x8D |
| Diamond T 700 | 3½ | 3740 | Her YXC | 6 | 4⅜x4¾ | 45.9 | Pb | Zen | Gra | Aut | Cov | C | 4 | Tim | Wo | — | R | D | 162 | 8100 | S36x5 | S36x10 |
| Diamond T 801 | 4 | 4140 | Her YXC | 6 | 4⅜x4¾ | 45.9 | Pb | Zen | Gra | Aut | Br-L | C | 7 | Own | Wo | — | 6WH | D | 189½ | 8300 | 36x8 4 wh | 36x8 |
| Diamond T 1000 | 5 | 4420 | Her YXC 2 | 6 | 4½x4¾ | 48.6 | Pb | Zen | Gra | Aut | Br-L | C | 4 | Tim | Wo | — | R | D | 170½ | 9700 | S36x6 | S40x12 |
| Diamond T 1200 | 6 | 5600 | Her YXC 2 | 6 | 4½x4¾ | 48.6 | Pb | Zen | Gra | Aut | Br-L | C | 7 | Tim | Wo | — | 4RW | D | 180 | 11000 | 34x7 4 w h | 34x7D |
| Diamond T 1600 | 8 | 6220 | Her YXC 3 | 6 | 4⅝x4¾ | 51.3 | Pb | Zen | Gra | Aut | Br-L | C | 7 | Tim | Wo | — | 4RW | D | 190 | 11700 | 36x8 4 wh | 36x8D |
| Diamond T 1601 | 8 | 7500 | Wak 6 R B | 6 | 5 x5¾ | 60.0 | Pb | Zen | Gra | Mag | Br-L | C | 7 | Tim | Wo | — | 4RW | D | 194 | 12500 | 36x8 4 wh | 36x8D |
| Diamond T 2500 | 10-12 | 8000 | Wak 6 R B | 6 | 5 x5¾ | 60 | Pb | Zen | Gra | Mag | Br-L | C | 7 | Tim | Wo | — | 4RW | D | 194 | 13100 | S36x7 4 wh | 36x12S |
| Dodge Bros. UF10A | ½ | 435 | Own | 4 | 3⅝x4¾ | 21.2 | — | — | — | — | Own | U | | Own | — | — | — | — | 109 | 1855 | 5.00x19 | 5.00x19 |
| Dodge Bros. F 10 A | ½ | 515 | Own | 6 | 3⅛x4⅛ | 23.4 | — | — | — | — | Own | U | | Own | — | — | — | — | 109 | 1960 | 5.25x19 | 5.25x19 |
| Dodge Bros. U-1 | ¾ | 695 | Own | 4 | 3⅝x4¼ | 21.3 | Pb | Car | Vac | NE | Own | U | 3 | Own | Sp | 21.68 | 4 | D | 124 | 2260 | 5.50x20B | 5.50x20B |
| Dodge Bros DA1 | ¾ | 795 | Own | 6 | 3⅜x3⅞ | 27.3 | Pb | Zen | Vac | NE | Own | U | 3 | Own | Sp | 19.21 | 4 | D | 124 | 2360 | 5.50x20B | 5.50x20B |
| Dodge Bros. U-1 | 1 | 795 | Own | 4 | 3⅝x4¼ | 21.3 | Pb | Car | Vac | NE | Own | U | 4 | Own | Sp | 36.13 | 4 | D | 133 | 2590 | 6.00x20B | 32x6 |
| Dodge Bros. DA1 | 1 | 895 | Own | 6 | 3⅜x3⅞ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 33.45 | 4 | D | 133 | 2690 | 6.00x20B | 32x6 |
| Dodge Bros DA1 | 1 | 1095 | Own | 6 | 3⅜x3⅞ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 36.83 | 4 | D | 140 | 2955 | 30x5 | 30x5 |
| Dodge Bros. UF30A | 1½ | 595 | Own | 4 | 3⅝x4¾ | 21.0 | — | — | — | — | Own | U | | Own | — | — | — | — | 136 | 2665 | 6.00x20 | 32x6 |
| Dodge Bros. F 30 A | 1½ | 695 | Own | 6 | 3⅛x4⅛ | 23.4 | — | — | — | — | Own | U | | Own | — | — | — | — | 136 | 2765 | 6.00x20 | 32x6 |
| Dodge Bros DA1 | 1½ | 1365 | Own | 6 | 3⅜x3⅞ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 36.83 | 4 | D | 150 | 3695 | 32x6 | 32x6 |
| Dodge Bros. F 35 A | 1½ | 1425 | Own | 6 | 3⅜x3⅞ | 27.3 | — | — | — | — | Own | U | | Own | — | — | — | — | 140 | 3780 | 6.00x20 | 6.00x20D |
| Dodge Bros. DA1 | 1½ | 1415 | Own | 6 | 3⅜x3⅞ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 36.83 | 4 | D | 165 | 3810 | 32x6 | 32x6 |
| Dodge Bros. DB1 | 2 | 1595 | Own | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 36.83 | 4 | D | 150 | 3930 | 32x6 | 34x7 |
| Dodge Bros DB1 | 2 | 1645 | Own | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 36.83 | 4 | D | 165 | 4070 | 32x6 | 34x7 |
| Dodge Bros. F 40 A | 2 | 1995 | Own | 6 | 3⅝x5 | 31.5 | — | — | — | — | Own | U | | Own | — | — | — | — | 150 | 5175 | 6.50x20 | 6.50x20D |
| Dodge Bros. DB1 | 3 | 1845 | Own | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 46.31 | 4 | D | 135 | 4235 | 32x6 | 32x6D |
| Dodge Bros. DB1 | 3 | 1895 | Own | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 41.43 | 4 | D | 165 | 4520 | 32x6 | 32x6D |
| Dodge Bros. DB1 | 3 | 1945 | Own | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | NE | Own | U | 4 | Own | Sp | 46.31 | 4 | D | 185 | 4715 | 32x6 | 32x6D |
| Dodge Bros. F 60 A | 3 | 2645 | Own | 6 | 3⅝x5 | 31.5 | — | — | — | — | Own | U | | Own | — | — | — | — | 146 | 5543 | 32x6 | 32x6D |
| Dodge Bros. F 61 A | 3 | 2575 | Own | 6 | 3⅝x5 | 31.5 | — | — | — | — | Own | U | | Own | — | — | — | — | 170 | 5789 | 32x6 | 32x6D |
| Durant | ¾ | 495 | Con | 4 | 3⅜x4⅛ | 18.2 | Pb | Til | Vac | Aut | Own | C | 3 | Own | Sp | 16.16 | 4 | 4 | 107 | 1670 | 28x4.75 | 28x4.75 |
| Essex Commercial | ¾ | 445 | Own | 6 | 2¾x4½ | 18.2 | CS | Mar | Vac | Aut | Own | U | 3 | Own | Sp | 17.8 | 4 | 4 | 110 | 2150 | 30x5 | 31x5.50 |
| Fargo Packet | ½ | 545 | Own | 6 | 3 x4⅛ | 21.6 | Pb | Str | Vac | NE | Own | U | 3 | Own | Sp | 14.29 | 4 | Tr | — | 1835 | 5.00x19 | 5.00x19 |
| Fargo Clipper | ¾ | 725 | Own | 6 | 3⅛x4⅛ | 23.4 | Pb | Str | Vac | DR | Own | U | 3 | Own | Sp | 15.53 | 4 | Tr | — | 2325 | 5.50x18 | 5.50x18 |
| Fargo Freighter | 1 | 795 | Own | 6 | 3 x4⅛ | 21.6 | Pb | Str | Vac | NE | Own | U | 4 | Own | Sp | 37.19 | 4 | Tr | — | 2785 | 6.00x20 | 32x6 |
| Federal E6 | 1½ | 1090 | Con 17 E | 6 | 3⅜x4 | 27.3 | Pb | Zen | Vac | DR | W-G T9 | U | 4 | Cla B370 | Sp | 34.6 | 4 | Tr | 132 | 3260 | 6.00x20 | 32x6 |
| Federal D | 1-1½ | 830 | Con W 10 | 4 | 3⅞x4¼ | 24.0 | Pb | Zen | P | DR | W-G T9 | U | 4 | Cla B372 | Sp | 40.8 | 4 | Tr | 131 | 3185 | 6.00x20 | 32x6 |
| Federal F7 | 1½ | 1525 | Con 16 C | 6 | 3⅜x4⅝ | 27.3 | Pb | Zen | P | DR | Own | U | 4 | Tim 52005H | Sp | 24.3 | 4 | Tr | 132 | 3765 | 30x5 | 30x5D |
| Federal A6 | 2 | 1855 | Con 16 C | 6 | 3⅜x4⅝ | 27.3 | Pb | Zen | Vac | DR | Own | C | 4 | Cla B610 | Sp | 38.5 | 4 | Tr | 151 | 4580 | 32x6 | 32x6D |
| Federal A6T | 2½ | 2185 | Con 16 C | 6 | 3⅜x4⅝ | 27.3 | Pb | Zen | Vac | DR | Own | C | 4 | Tim 58000H | Sp | 41.3 | 4 | Tr | 151 | 4950 | 32x6 | 32x6D |
| Federal A6TW | 2½ | 2360 | Con 16 C | 6 | 3⅜x4⅝ | 27.3 | Pb | Zen | Vac | DR | Own | C | 4 | Tim 65001H | Wo | 42.0 | 4 | Tr | 151 | 4950 | 32x6 | 32x6D |
| Federal T10B | 2½-3 | 2740 | Con 16 R | 6 | 4 x4⅛ | 38.4 | Pb | Zen | P | DR | Own | C | 4 | Tim 58000H | Sp | 36.3 | 4 | Tr | 165 | 6550 | 34x7 | 34x7D |
| Federal T10W | 2½-3 | 2915 | Con 16 R | 6 | 4 x4⅛ | 38.4 | Pb | Zen | P | DR | Own | C | 4 | Tim 65001H | Wo | 44.0 | 4 | Tr | 165 | 6550 | 34x7 | 34x7D |
| Federal U6 | 3-3½ | 3860 | Con 18 R | 6 | 4 x4½ | 38.4 | Pb | Str | P | DR | Br-L 55 | C | 7 | Tim 65706HP | Wo | 64.6 | 4 | D | 165 | 7220 | 34x7 | 34x7D |
| Federal 4C6A | 4-5 | 4735 | Con 20 R | 6 | 4⅛x4¾ | 40.8 | Pb | Zen | P | DR | Br-L 55 | C | 7 | Tim 66704HP | Wo | 73.6 | 4 | D | 192 | 8330 | 36x8 | 36x8D |
| Federal 4C6AB | 4-5 | 4960 | Con 20 R | 6 | 4⅛x4¾ | 40.8 | Pb | Zen | P | DR | Br-L 55 | C | 7 | Tim 66704TWP | Wo | 73.6 | 4 | D | 192 | 8850 | 36x8 | 36x8D |
| *Federal U6SW | 6 | 6000 | Con 20 R | 6 | 4⅛x4¾ | 40.8 | Pb | Zen | P | DR | Br-L 55 | C | 7 | Tim SW 200 | Wo | 71.3 | 6 | Tr | 201 | 9850 | 34x7 | 34x7D |
| *Federal U6SWAB | 6 | 6500 | Con 20 R | 6 | 4⅛x4¾ | 40.8 | Pb | Zen | P | DR | Br-L 55 | C | 7 | Tim SW 200 | Wo | 71.3 | 4 | Tr | 201 | 9900 | 34x7 | 34x7D |
| Federal X8 | 7½ | 5085 | Con B 7 | 4 | 5 x6 | 40 | Pw | Zen | Vac | AB | Br-L 60 | C | 7 | Tim 68700DP | Wo | 110.9 | R | D | 162 | 9750 | 36x6S | 40x14S |
| Federal X8R | 7½ | 5810 | Con 21 R | 6 | 4¾x4¾ | 45.9 | Pb | Zen | P | DR | Br-L 60 | C | 7 | Tim 68700DP | Wo | 110.9 | R | D | 162 | 10000 | 40x8 | 40x8D |
| *Federal 4C6SW | 8 | 7500 | Con 21 R | 6 | 4⅜x4¾ | 45.9 | Pb | Zen | P | DR | Br-L 55 | C | 7 | Tim SW 300 | Wo | 80.8 | 4 | Tr | 231 | 11500 | 36x8 | 36x8D |

# 1930 COMMERCIAL CARS BUILT IN THE UNITED STATES

| Make and Model | Capacity—Tons | Chassis Price | Engine | No. of Cyl. | Bore Stroke | Tax H. P. | Oil System | Carburetor | Fuel Feed | Ignit. System | Gear Set | Location | No. Spds. For. | Rear Axle | Final Drive | Reduction in Low | Brakes, Foot | Brakes, Hand | Standard Wheel Base | Chassis Weight | Standard Tire Sizes Front | Rear |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ford AA | 1½ | 520 | Own | 4 | 3⅞x4¼ | 24.0 | Sp | Zen | Gra | Own | Own | U | 4 | Own | St | 42.24 | 4 | R | 131½ | 2792 | 6.00x20 | 32x6 |
| Ford AA | 1½ | 545 | Own | 4 | 3⅞x4¼ | 24.0 | Sp | Zen | Gra | Own | Own | U | 4 | Own | St | 42.24 | 4 | R | 157 | 2570 | 6.00x30 | 6.00x30D |
| F. W. D.—H | 1½ | 3300 | Wis S U | 4 | 4 x5 | 25.6 | Pb | Zen | Vac | Eis | Cotta | C | 4 | Own | St | 38.1 | 4 | R | 121 | 5300 | 34x7 | 34x7 |
| F. W. D.—H6 | 2 | 3425 | Wak | 6 | 3½x4½ | 29.4 | Pb | Zen | Vac | Eis | Br-L | U | 4 | Own | St | 35.0 | 4 | R | 133 | 5500 | 34x7 | 34x7 |
| F. W. D.—BTL4 | 2 | 3900 | Wis S U | 4 | 4 x5 | 25.6 | Pb | Zen | Vac | Eis | Br-L | C | 7 | Own | St | 84.7 | 4 | R | 120 | 6000 | 36x8 | 36x8 |
| F. W. D.—HH6 | 2½ | 4000 | Wak | 6 | 3¾x4½ | 33.7 | Pb | Zen | Vac | Eis | Br-L | C | 7 | Own | St | 101.0 | 4 | R | 133 | 5700 | 36x8 | 36x8 |
| F. W. D.—B | 3 | 4200 | Own | 4 | 4¾x5½ | 36.1 | Pb | Str | Gra | Eis | Own | C | 3 | Own | St | 35.6 | 4 | R | 124 | 6460 | 36x6S | 36x6S |
| F. W. D.—B 5 | 3 | 4525 | Own | 4 | 4¾x5½ | 36.1 | Pb | Str | Gra | Eis | Own | C | 5 | Own | St | 88.6 | 4 | R | 132 | 6800 | 36x6S | 36x6S |
| F. W. D.—B T | 3 | 4742 | Own | 4 | 4¾x5½ | 36.1 | Pb | Str | Vac | Eis | Own | C | 5 | Own | St | 101.0 | 4 | R | 133¾ | 7700 | 40x7S | 40x5SD |
| F. W. D.—U 4 | 3 | 4575 | Own | 4 | 4¾x5½ | 36.1 | Pb | Str | Vac | Eis | Own | C | 5 | Own | St | 88.6 | 4 | R | 148 | 7000 | 36x6S | 36x6S |
| F. W. D.—C U 6 | 3½ | 5120 | Wak | 6 | 4 x4¾ | 38.6 | Pb | Zen | Vac | Eis | Own | C | 5 | Own | St | 66.6 | 4 | R | 148 | 7200 | 36x6S | 36x8S |
| *F. W. D.—X 6 | 6 | 6500 | Wak | 6 | 4¼x4¾ | 43.3 | Pb | Zen | Vac | Eis | Own | C | 5 | Own | St | 66.6 | * | 4 | 170 | 9500 | 36x8 | 36x8 |
| Garford Series S 11 | 1 | 1600 | Bud H S 6 | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Col | Sp | 25.5 | 4 | D | 142 | 3900 | 30x5 | 30x5 |
| Garford Series 40 | 1½ | 2990 | Bud D S 6 | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Tim | Wo | 34.8 | 4 | D | 168 | 4700 | 34x5 | D34x5 |
| Garford Series 40 | 2 | 3240 | Bud D S 6 | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Tim | Wo | 34.8 | 4 | D | 168 | 4900 | 36x6 | D36x6 |
| Garford Series 60 | 2½ | 4580 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Ful | U | 5 | Tim | Wo | 63.0 | 4 | D | 175 | 7000 | 36x6 | D36x6 |
| Garford Series 80 | 3½ | 5250 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Br-L | C | 7 | Tim | Wo | 98.2 | 4 | D | 175 | 8200 | S36x6 | S36x12 |
| Garford Series 100 | 5 | 5830 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Br-L | C | 7 | Tim | Wo | 95.0 | 4 | D | 175 | 9600 | S36x6 | S40x14 |
| Gen. Mot. T11-1001 | *3800 | 625 | Pontiac | 6 | 3 5/16x3⅞ | 26.3 | Pb | Mar | P | DR | Own | U | 3 | Pontiac | Sp | 14.7 | 4 | 4 | 109⅝ | 1980 | 5.00x19B | 5.50x19B |
| Gen. Mot. T15-1501 | *5400 | 695 | Pontiac | 6 | 3 5/16x3⅞ | 26.3 | Pb | Mar | P | DR | Own | U | 3 | Tim 51500 | Sp | 16.14 | 4 | 4 | 130 | 2625 | 5.50x20B | 5.50x20B |
| Gen. Mot. T17-1701 | *5500 | 735 | Pontiac | 6 | 3 5/16x3⅞ | 26.3 | Pb | Mar | P | DR | Own | U | 3 | Tim 51505 | Sp | 16.04 | 4 | 4 | 130 | 2650 | 6.50x20B | 6.50x20B |
| Gen. Mot. T19-2201 | *6300 | 895 | Pontiac | 6 | 3 5/16x3⅞ | 26.3 | Pb | Mar | P | DR | Mun | U | 4 | Tim 5261 | Sp | 34.45 | 4 | D | 130 | 2850 | 5.50x20B | 32x6 |
| Gen. Mot. T17-1707 | *6500 | 750 | Pontiac | 6 | 3 5/16x3⅞ | 26.3 | Pb | Mar | P | DR | Own | U | 3 | Tim 51505 | Sp | 16.04 | 4 | 4 | 130 | 2670 | 5.50x20B | 32x6 |
| Gen. Mot. T25-2501 | *6800 | 1235 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Tim 5261 | Sp | 29.62 | 4 | D | 130 | 3375 | 6.00x20B | 7.50x20B |
| Gen. Mot. T19-2214 | *8500 | 985 | Pontiac | 6 | 3 1/16x3⅞ | 26.3 | Pb | Mar | P | DR | Mun | U | 4 | Tim 5261 | Sp | 34.45 | 4 | D | 130 | 2925 | 30x5 | 30x5D |
| Gen. Mot. T25-2509 | *8500 | 1280 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Tim 5261 | Sp | 29.62 | 4 | D | 130 | 3425 | 30x5 | 30x5D |
| Gen. Mot. T30-3206 | *9000 | 1555 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Eat 1617 | Sp | 28.6 | 4 | D | 141 | 4450 | 6.00x20B | 8.25x20B |
| Gen. Mot. T42-4206 | *10600 | 1735 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Eat 1717 | Sp | 33.38 | 4 | D | 141 | 4575 | 7.00x20B | 9.00x20B |
| Gen. Mot. T30-3203 | *11000 | 1605 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Eat 1617 | Sp | 28.6 | 4 | D | 141 | 4525 | 32x6 | 32x6D |
| Gen. Mot. T44-4401 | *12000 | 1965 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Eat T44DR | 2R | 40.89 | 4 | D | 141 | 4825 | 32x6 | 32x6D |
| Gen. Mot. T42-4203 | *14000 | 1960 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Eat 1717 | Sp | 33.38 | 4 | D | 141 | 4905 | 36x6 | 36x6D |
| Gen. Mot. T44-4404 | *15000 | 2095 | Buick | 6 | 3 7/16x4⅝ | 28.3 | Pb | Mar | P | DR | Mun | U | 4 | Eat T44DR | 2R | 40.89 | 4 | D | 141 | 5095 | 34x7 | 34x7D |
| Gen. Mot. T60-6202 | *16500 | 3035 | Buick | 6 | 3¾x5 | 33.7 | Pb | Mar | P | DR | Mun | U | 4 | Tim 65706 | Wo | 52.53 | 4 | D | 154¼ | 6925 | 34x7 | 34x7D |
| Gen. Mot. T60-6205 | *18500 | 3125 | Buick | 6 | 3¾x5 | 33.7 | Pb | Mar | P | DR | Mun | U | 4 | Tim 65706 | Wo | 52.53 | 4 | D | 154¼ | 6925 | 9.00x20B | 9.00x20DB |
| Gen. Mot. T82-8202 | *19000 | 3795 | Buick | 6 | 3¾x5 | 33.7 | Pb | Mar | P | DR | Br-L | C | 5 | Tim 66704 | Wo | 82.2 | 4 | D | 155 | 7500 | 9.00x20B | 9.00x20DB |
| Gen. Mot. T82-8207 | *22000 | 4070 | Buick | 6 | 3¾x5 | 33.7 | Pb | Mar | P | DR | Br-L | C | 5 | Tim 66704 | Wo | 82.2 | 4 | D | 155 | 7850 | 38x7 | 38x9D |
| Gen. Mot. T90-9001 | *23000 | 5885 | Buick | 6 | 3¾x5 | 33.7 | Pb | Mar | P | DR | Br-L | C | 5 | Tim SW-200 | Wo | 76.04 | WR | D | 185¼ | 9400 | 7.50x20B | 7.50x20D |
| Gen. Mot. T90-9004 | *28000 | 6055 | Buick | 6 | 3¾x5 | 33.7 | Pb | Mar | P | DR | Br-L | C | 5 | Tim SW-200 | Wo | 76.04 | WR | D | 185¼ | 9775 | 8.25x20B | 8.25x20DB |
| *Gramm B | 1½ | 1495 | Lyc 4 SL | 6 | 3¼x4½ | 25.3 | Pb | Zen | Vac | Aut | Cov | U | 4 | Tim | Sp | 34.3 | 4 | Tr | 140 | 3800 | 30x5 | 30x5D |
| *Gramm C | 2 | 1795 | Lyc ASA | 6 | 3⅝x4½ | 31.54 | Pb | Zen | P | Aut | Cov | U | 4 | Tim | Sp | 31 | 4 | Tr | 160 | 4820 | 32x6 | 32x6D |
| *Gramm D | 2½ | 2195 | Lyc TS | 6 | 3⅞x5 | 36 | Pb | Zen | P | Aut | Cov | U | 4 | Tim | Sp | 33 | 4 | Tr | 160 | 5100 | 32x6 | 32x6D |
| *Gramm E | 3 | 2595 | Lyc TS | 6 | 3⅞x5 | 36 | Pb | Zen | P | Aut | Ful | U | 4 | Tim | Sp | 35 | 4 | Tr | 160 | 5300 | 34x7 | 34x7D |
| *Gramm EY | 3 | 3595 | Con 20 R | 6 | 4⅛x4¾ | 40.80 | Pb | Zen | P | Aut | Ful | U | 4 | Tim | Sp | 30 | 4 | D | 190 | 6750 | 32x6 | 32x6D |
| *Gramm T-38 | 3 | 3595 | Lyc TS | 6 | 3⅞x5 | 36 | Pb | Zen | P | Aut | Ful | U | 4 | Wis | 2R | 45 | D | R | 153 | 7200 | 36x5S | 36x10S |
| *Gramm O-45 | 4 | 3995 | Lyc TS | 6 | 3⅞x5 | 36 | Pb | Zen | P | Aut | Ful | C | 8 | Wis | 2R | 75.8 | D | R | 153 | 7700 | 36x5S | 36x12S |
| *Gramm GY | 4 | 4345 | Con 21 R | 6 | 4⅝x4¾ | 45.9 | Pb | Zen | P | Aut | Ful | U | 4 | Wis | 2R | 28 | 4 | D | 210 | 7200 | 34x7 | 34x7D |
| *Gramm O-60 | 5 | 4745 | Lyc TS | 6 | 3⅞x5 | 36 | Pb | Zen | P | Aut | Ful | C | 8 | Wis | 2R | 78.4 | D | R | 153 | 8800 | 36x6S | 36x14S |
| *Gramm HY | 5 | 6545 | Con 16 H | 6 | 4¾x5¾ | 54.15 | Pb | Zen | P | Aut | Ful | U | 4 | Wis | 2R | 25.2 | 4 | D | 236 | 9600 | 36x8 | 36x8D |
| Indiana 64 | 1 | 1195 | Con | 6 | 3⅜x4⅝ | 27.3 | Pb | Str | Vac | Aut | Br-L | U | 3 | Col | Sp | 21.3 | 4 | Tr | 137 | 3435 | 30x5 | 30x5 |
| Indiana 74 | 1¼ | 1290 | Con | 6 | 3⅜x4⅝ | 27.3 | Pb | Str | Vac | Aut | Br-L | U | 4 | Col | Sp | 25.6 | 4 | Tr | 137 | 3450 | 32x6 | 32x6 |
| Indiana 11 | 1¼ | 1425 | Her | 4 | 4 x5 | 25.6 | Pb | Str | Gra | Aut | Br-L | U | 3 | Cla | Sp | 24.48 | R | R | 129½ | 3500 | 30x5 | 30x5 |
| Indiana 89 | 1½ | 1525 | Con | 6 | 3⅜x4⅝ | 27.3 | Pb | Str | Vac | Aut | Br-L | U | 4 | Col | Sp | 25.6 | 4 | Tr | 149 | 3650 | 32x6 | 32x6 |
| Indiana 111 | 1½ | 1630 | Her | 4 | 4 x5 | 25.6 | Pb | Str | Gra | Aut | Br-L | U | 3 | Cla | Sp | 26.4 | R | R | 129½ | 3600 | 30x5 | 32x6 |
| Indiana 111 XW | 2 | 1850 | Her | 4 | 4 x5 | 25.6 | Pb | Str | Vac | Eis | Br-L | U | 4 | Wis | 2R | 30.14 | R | Tr | 120 | 3740 | 32x6 | 32x6D |
| Indiana 120 | 2 | 1990 | Con | 6 | 4 x4⅛ | 38.4 | Pb | Str | P | Aut | Br-L | U | 4 | Tim | Sp | — | 4 | Tr | 156 | 5200 | 32x6 | 32x6D |
| Indiana 140 | 2 | 2495 | Con | 6 | 4 x4⅛ | 38.4 | Pb | Str | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4V | Tr | 156 | 5500 | 32x6 | 32x6D |
| Indiana 115 A | 2½ | 2740 | Her | 4 | 4¼x5 | 28.9 | Pb | Str | Vac | Eis | Br-L | U | 4 | Cla | Sp | 42.99 | R | Tr | 132 | 4970 | 32x6 | 34x7D |
| Indiana 615 A | 2½ | 3070 | Wis | 6 | 3⅜x5 | 27.34 | Pb | Str | Vac | Eis | Br-L | U | 4 | Cla | Sp | 46.29 | R | Tr | 136 | 5160 | 32x6 | 32x6D |
| Indiana 170 | 2½ | 3160 | Con | 6 | 4⅛x4¾ | 40.8 | Pb | Str | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4HV | D | 170 | 6800 | 32x6 | 32x6D |
| Indiana 127 AW | 3 | 3775 | Her | 4 | 4¼x5 | 28.90 | Pb | Str | Vac | Eis | Br-L | U | 5 | Wis | 2R | 41.72 | RV | D | 158¼ | 7000 | 34x7 | 34x7D |
| Indiana 627 AW | 3 | 4075 | Wis | 6 | 4 x5 | 38.40 | Pb | Str | Vac | Eis | Br-L | U | 5 | Wis | 2R | 41.72 | RV | D | 156¼ | 7200 | 34x7 | 34x7D |
| Indiana 195 | 3 | 3820 | Con | 6 | 4⅛x4¾ | 40.8 | Pb | Str | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4HV | D | 170 | 7500 | 34x7 | 34x7D |
| Indiana 190 | 3 | 4185 | Con | 6 | 4⅛x4¾ | 40.8 | Pb | Str | P | Aut | Br-L | C | 7 | Tim | Wo | — | RV | D | 168½ | 7625 | 34x7 | 34x7D |
| Indiana 220 | 3½ | 4560 | Con | 6 | 4⅜x4¾ | 45.9 | Pb | Str | P | Aut | Br-L | U | 4 | Wis | 2R | — | 4HV | D | 170 | 8200 | 36x8 | 36x8D |
| Indiana 250 | 5 | 5950 | Con | 6 | 4⅜x4¾ | 45.9 | Pb | Str | P | Aut | Br-L | U | 4 | Tim | Wo | — | 4HMV | D | 182 | 10000 | 40x8 | 40x8D |
| Indiana 290 | 7 | 7250 | Con | 6 | 4¾x5¾ | 54.15 | Pb | Str | P | L-N | Br-L | C | 7 | Tim | Wo | — | 4W | D | 182 | 10750 | 38x7 | 40x14S |
| Indiana 640 | 10 | 9700 | Con | 6 | 4¾x5¾ | 54.15 | Pb | Str | P | L-N | Br-L | C | 7 | Tim | Wo | — | 4RW | D | 212 | 14000 | 38x7 | 36x10S |
| International AW-1 | ¾ | 720 | Wak X A | 4 | 3½x4½ | 19.6 | Pb | Zen | Vac | DR | Mec | U | 3 | Eat 517 | Sp | 17.4 | 4 | 2 | 136 | 2620 | 5.25x20 | 5.25x20 |
| Int. Harvester Sp. Del. | ¾ | 720 | Wak X A | 4 | 3½x4½ | 19.6 | Pb | Zen | Vac | DR | Mec | U | 3 | Eat 502 R | Sp | 15.1 | 4 | 2 | 124 | 2200 | 30x5.25 | 30x5.25 |
| Int. Harv. 6 Spd. Spec. | 1 | 820 | Wak X A | 4 | 3½x4½ | 19.6 | Pb | Zen | Vac | DR | Mec | U | 3 | Eat 1124 | Sp | 52.6 | 4 | 2 | 124 | 2430 | 30x5 | 30x5 |
| Int. Harvester S-24 | 1¼ | 1160 | Lyc C T | 4 | 3¾x5 | 22.5 | Pw | Zen | Vac | DR | Own | U | 3 | Eat 1002 | Sp | 21.3 | 4 | 2 | 130 | 3200 | 30x5 | 30x5 |
| Int. Harvester S-26 | 1¼ | 1310 | Lyc 4 S L | 6 | 3¼x4½ | 25.3 | Pb | Zen | Vac | DR | Own | U | 3 | Eat 1002 | Sp | 21.3 | 4 | 2 | 130 | 3250 | 30x5 | 30x5 |
| Int. Harvester SF-34 | 1½ | 1450 | Lyc C T | 4 | 3¾x5 | 22.5 | Pw | Zen | Vac | DR | Own | U | 3 | Eat 1502 | Sp | 22.6 | 4 | 2 | 140 | 3520 | 30x5 | 32x6 |
| International AL-3 | 1½ | 1450 | Lyc SLH | 6 | 3¼x4½ | 25.3 | Pb | Zen | Vac | DR | W-G | U | 4 | Eat 1518 | Sp | 42.9 | 4 | 2 | 138 | 4300 | 6.00x20 | 6.00x20D |
| Int. Harvester SF-36 | 1½ | 1600 | Lyc 4 S L | 6 | 3¼x4½ | 25.3 | Pb | Zen | Vac | DR | Own | U | 3 | Eat 1502 | Sp | 22.6 | 4 | 2 | 140 | 3570 | 30x5 | 32x6 |
| Int. Harvester SD-44 | 2 | 1590 | Lyc C T | 4 | 3¾x5 | 22.5 | Pw | Zen | Vac | AB | Own | U | 4 | Eat 2002 | Sp | 40.6 | 4 | 2 | 117 | 3700 | 30x5 | 32x6 |
| Int. Harvester SD-46 | 2 | 1740 | Lyc 4 S L | 6 | 3¼x4½ | 25.3 | Pb | Zen | Vac | AB | Own | U | 4 | Eat 2002 | Sp | 40.6 | 4 | 2 | 117 | 3750 | 30x5 | 32x6 |
| Int. Harvester SF-46 | 2 | 1950 | Lyc 4 S L | 6 | 3¼x4½ | 25.3 | Pb | Zen | Vac | DR | Own | U | 4 | Eat 2002 | Sp | 40.6 | 4 | 2 | 140 | 4000 | 32x6 | 32x6D |
| Int. Harvester A-4 | 2 | 1985 | Own-FBB | 6 | 3⅝x4½ | 31.5 | Pb | Zen | Vac | DR | Own | U | 5 | Eat 1712 | Sp | 47.8 | 4 | 2 | 145 | 5070 | 32x6 | 32x6D |
| Int. Harvester HS-54 | 2½ | 3850 | Hall-S 151 | 4 | 4¼x5½ | 28.9 | Pb | Zen | Vac | RB | Own | U | 5 | Eat 54 | 2R | 60.5 | 4 | 4 | 148 | 8000 | 36x5S | 36x8S |
| Int. Harvester HS-54-C | 2½ | 3850 | Hall-S 151 | 4 | 4¼x5½ | 28.9 | Pb | Zen | Vac | RB | Own | U | 5 | Own A M 428 | Ch | 63.8 | 4 | 4 | 148 | 8665 | 36x5S | 36x10S |
| Int. Harvester W-1 | 2½ | 3850 | Hall-S 151 | 4 | 4¼x5½ | 28.9 | Pb | Zen | Vac | RB | Own | U | 5 | Eat 58 | 2R | 60.5 | 4 | 2 | 148 | 8300 | 36x5S | 36x8S |
| Int. Harvester A-5 | 3 | 2550 | Own-FBB | 6 | 3⅝x4½ | 31.5 | Pb | Zen | Vac | DR | Own | U | 5 | Eat 2112 | Sp | 52.6 | 4 | 2 | 156 | 5606 | 34x7 | 34x7D |
| Int. Harvester HS-74 | 3½ | 4850 | Hall-S 152 | 4 | 4¾x5½ | 36.1 | Pb | Zen | Vac | RB | Own | U | 5 | Eat 74 | 2R | 70.5 | 4 | 4 | 160 | 10700 | 36x5S | 40x12S |
| Int. Harvester HS-74-C | 3½ | 4850 | Hall-S 152 | 4 | 4¾x5½ | 36.1 | Pb | Zen | Vac | RB | Own | U | 5 | Own A M 427 | Ch | 79.1 | 4 | 4 | 160 | 11000 | 36x6S | 40x12S |
| Int. Harv's'r HS-104-C | 5 | 5500 | Hall-S 152 | 4 | 4¾x5½ | 36.1 | Pb | Zen | Vac | RB | Own | U | 5 | Own A M 427 | Ch | 90.5 | 4 | 4 | 160 | 11095 | 36x6S | 40x14S |
| La France-Repub. A-1 | *6000 | 990 | Lyc | 6 | 2 7/8x4¾ | 19.8 | Pb | Zen | Vac | Aut | Ful | U | 4 | Tim | Sp | 36.1 | 4 | Tr | 132 | 3000 | 5.50x20 | 32x6 |
| La France-Repub. C-1 | *7000 | 1295 | Lyc | 6 | 3¼x4½ | 25.4 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Tim | Sp | 29.1 | 4 | Tr | 144 | 3300 | 6.00x20 | 32x6 |
| La France-Repub. D-1 | *9000 | 1595 | Lyc | 6 | 3¼x4½ | 25.4 | Pb | Zen | Vac | Aut | Ful | U | 4 | Tim | Sp | 37.9 | 4 | Tr | 144 | 3725 | 30x5 | 30x5D |
| La France-Repub. F-2 | *13000 | 2395 | Lyc | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Ful | U | 4 | Tim | Sp | 40.1 | 4 | D | 174 | 5870 | 32x6 | 32x6D |
| La France-Repub. H-1 | *15000 | 2985 | Lyc | 6 | 3⅞x5 | 36.0 | Pb | Zen | Vac | Aut | Ful | U | 4 | Eat | Sp | 36.0 | 4 | D | 163 | 5850 | 34x7 | 34x7D |
| La France-Repub. L-1 | *18000 | 3595 | Lyc | 6 | 3⅞x5 | 36.0 | Pb | Zen | Vac | Aut | Ful | U | 4 | Eat | 2R | 48.0 | 4 | D | 180 | 6900 | 36x8 | 36x8D |
| La France-Repub. M-1 | *20000 | 3800 | Wak | 6 | 4 x4¾ | 38.4 | Pb | Zen | Vac | Aut | Ful | U | 5 | Eat | 2R | 62.3 | R | D | 171 | 6900 | 36x8 | 36x8D |
| Mack BL | 1 | 2500 | Own | 6 | 3¼x5 | 25.39 | Pw | Str | Vac | NE | Own | U | 4 | Own | Sp | Opt | 4 | D | 148 | —— | B6.00x20 | DB6.00x20 |
| †'Mack BG | 1½ | 3000 | Own | 6 | 3⅝x5 | 31.57 | Pw | Str | Vac | NE | Own | U | 4 | Own | Sp | Opt | 4 | D | 138-156 | —— | 32x6 | D32x6 |
| Mack AB | 2½-3 | 3950 | Own | 4 | 4¼x5 | 28.9 | Pb | Str | Gra | RB | Own | U | 4 | Own | 2R | Opt | R | D | 2-Opt | —— | 36x4S | 36x8S |
| ††Mack AB | 2½-3 | 3500 | Own | 4 | 4¼x5 | 28.9 | Pb | Str | Gra | RB | Own | U | 4 | Own | Ch | Opt | R | D | 2-Opt | —— | 36x4S | 36x8S |
| Mack AB | 2½-3 | 4750 | Own | 6 | 3⅝x5 | 31.57 | Pw | Str | Vac | NE | Own | U | 4 | Own | 2R | Opt | R | D | 2-Opt | —— | 34x7 | D34x7 |
| ††Mack AB | 2½-3 | 4300 | Own | 6 | 3⅝x5 | 31.57 | Pw | Str | Vac | NE | Own | U | 4 | Own | Ch | Opt | R | D | 2-Opt | —— | 34x7 | D34x7 |
| ††Mack BC | 3½-4 | 4250 | Own | 4 | 4¼x5 | 28.9 | Pb | Str | Gra | RB | Own | U | 4 | Own | 2R | Opt | 4 | D | 2-Opt | —— | 36x5S | 36x5DS |
| ††Mack BC | 3½-4 | 5250 | Own | 6 | 4 x5½ | 38.4 | Pb | Str | Vac | NE | Own | U | 4 | Own | 2R | Opt | 4 | D | 2-Opt | —— | 34x7 | D36x8 |
| ††Mack BJ | 3½-5 | 6150 | Own | 6 | 4½x5½ | 48.6 | Pb | Str | Vac | NE | Own | C | 4 | Own | 2R | Opt | 4 | D | 3-Opt | —— | 36x8 | 36x8D |
| ††Mack AK | 3½-5 | 5150 | Own | 4 | 5 x6 | 40.0 | Pb | Str | Gra | RB | Own | J | 4 | Own | Ch | Opt | 4 | J | 3-Opt | —— | 36x5S | 36x5DS |
| ††Mack AK | 3½-5 | 5250 | Own | 4 | 5 x6 | 40.0 | Pb | Str | Gra | RB | Own | C | 4 | Own | 2R | Opt | 4 | D | 3-Opt | —— | 36x5S | 36x5DS |
| ††Mack AC | 3½-5 | 4950 | Own | 4 | 5 x6 | 40.0 | Pb | Str | Gra | RB | Own | J | 4 | Own | Ch | Opt | J | R | 3-Opt | —— | 36x5S | 40x10S |
| ††Mack AC | 5½-7 | 5500 | Own | 4 | 5 x6 | 40.0 | Pb | Str | Gra | RB | Own | J | 4 | Own | Ch | Opt | J | R | 3-Opt | —— | 36x6S | 40x12S |
| ††Mack AC | 7½ | 6000 | Own | 4 | 5 x6 | 40.0 | Pb | Str | Gra | RB | Own | J | 4 | Own | Ch | Opt | J | R | 3-Opt | —— | 36x7S | 40x14S |
| ††Mack AP | 7½ | 9500 | Own | 6 | 5 x6 | 60.0 | Pb | Str | Gra | NE | Own | J | 4 | Own | Ch | Opt | R | J | 191 | —— | 36x7S | 40x8DS |
| Mack A C 6-wheel | 10 | 7500 | Own | 4 | 5 x6 | 40.0 | Pb | Str | Gra | RB | Own | J | 4 | Own | Ch | Opt | 4R | J | 3-Opt | —— | 36x7S | 40x12S |
| Mack AP 6-wheel | 10 | 12000 | Own | 6 | 5 x6 | 60.0 | Pb | Str | Gra | NE | Own | J | 4 | Own | Ch | Opt | 4R | J | 3-Opt | —— | 36x7 | 40x12S |
| Paige | ¾ | 860 | Own | 6 | 3¼x4½ | 25.35 | Pb | DL | P | DR | W-G | U | 3 | Sal | Sp | 17.36 | 4 | Tr | 115 | 2465 | B5.50x19 | B5.50x19 |
| Relay Series 15 | ¾ | 1370 | Con 17 E | 6 | 3⅜x4 | 27.3 | Pb | Str | Vac | Aut | W-G | U | 4 | Own | R | 38.4 | 4 | D | 131 | 3750 | 30x5P | 30x5P |

# Major Specifications and Mechanical Details of 1930 Commercial Cars Built in the United States

| Make and Model | Capacity—Tons | Chassis Price | Engine | No. of Cyl. | Bore and Stroke | Tax H. P. | Oily System | Carburetor | Fuel Feed | Ignit. System | Gear Set | Location | No. Spds. For. | Rear Axle | Final Drive | Reduction in Low | Brakes, Foot | Brakes, Hand | Standard Wheel Base | Chassis Weight | Standard Tire Sizes Front | Rear |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Relay Series 15 | 1 | 1400 | Con 17 E | 6 | 3⅜x4 | 27.3 | Pb | Str | Vac | Aut | W-G | U | 4 | Own | R | 38.4 | 4 | D | 139 | 3800 | 30x5P | 30x5P |
| Relay Series 40 | 1½ | 2990 | Bud D S 6 | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Own | R | 34.5 | 4 | D | 168 | 5300 | 34x5 | D34x5 |
| Relay Series S 11 | 2 | 2030 | Bud H S 6 | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Own | R | 30.0 | 4 | D | 162 | 4700 | 32x6 | D32x6 |
| Relay Series 50 | 2 | 3860 | Bud D W 6 | 6 | 3¾x5 | 33.7 | Pb | Zen | Vac | Aut | Br-L | U | 5 | Own | R | 58.5 | 4 | D | 161 | 6800 | 36x6 | D36x6 |
| Relay Series 60 | 2½ | 4555 | Bud B A 6 | 6 | 4 x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Ful | U | 5 | Own | R | 63.7 | 4 | D | 175 | 7350 | 36x6 | D36x6 |
| Relay Series 80 | 3 | 5330 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Br-L | U | 8 | Own | R | 84.18 | 4 | D | 175 | 8400 | 36x6 | S40x10 |
| Relay Series 80 | 4 | 5380 | Bud B A | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Cov | C | 8 | Own | R | 84.18 | 4 | D | 175 | 8800 | 38x7 | S40x14 |
| Relay Series 100 | 5 | 6615 | Con 21 R | 6 | 4⅜x4¾ | 45.9 | Pb | Str | Vac | Aut | Ful | U | 5 | Own | R | 63.7 | 4 | D | 230 | 10000 | 9.00x24 | D9.75x24 |
| Reo D F 129 | ½ | 1095 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | P | DR | Own | U | 3 | Own | Sp | 17.1 | 4 | Tr | 129 | —— | 6.00x20 | 32x6 |
| Reo 15 Junior | ½ | 785 | Con 16 E | 6 | 3⅜x4 | 27.3 | Pb | Sch | P | DR | W-G | U | 3 | Sal | Sp | 14.63 | 4 | Tr | 115 | 2290 | 6.00x18 | 6.00x18 |
| Reo D F | 1 | 1095 | Own C B | 6 | 3⅜x5 | 27.3 | Pb | Sch | P | DR | Own | U | 3 | Own | Sp | 17.1 | 4 | Tr | 135 | 3200 | 6.00x20 | 32x6 |
| Reo F A | 1⅛ | 1295 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 22.96 | 4 | Tr | 135 | 3525 | 6.50x20 | 32x6 |
| Reo F E | 1½ | 1395 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 22.96 | 4 | Tr | 152 | 3700 | 6.50x20 | 32x6 |
| Reo F F | 1½ | 1395 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 22.96 | 4 | Tr | 156 | 3750 | 6.50x20 | 32x6 |
| Reo F H | 2 | 1595 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 37.6 | 4 | Tr | 142 | 4165 | 32x6 | 32x6D |
| Reo F C | 2 | 1645 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 37.62 | 4 | Tr | 152 | 4025 | 32x6 | 32x6D |
| Reo F D | 2 | 1745 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 37.62 | 4 | Tr | 168 | 4075 | 32x6 | 32x6D |
| Reo G A | 3 | 3035 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 41.05 | 4 | Tr | 163 | 4625 | 32x6 | 32x6D |
| Reo G C | 3 | 2140 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 41.05 | 4 | Tr | 179 | 4850 | 32x6 | 32x6D |
| Reo G D | 3 | 1985 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 46.2 | 4 | Tr | 144 | 4570 | 32x6 | 32x6D |
| Reo G C S | 3 | 2375 | Own | 6 | 3⅜x5 | 27.3 | Pb | Sch | Vac | DR | Own | U | 4 | Own | Sp | 41.05 | 4 | Tr | 210 | 5320 | 32x6 | 32x6D |
| Rugby T | ½ | 655 | Con | 6 | 3¼x4 | 25.4 | Pb | Str | P | Aut | Own | U | 3 | Own | Sp | 15.6 | 4 | 4 | —— | 2160 | 29x5 | 29x5 |
| Rugby 6-15 | 1 | 865 | Con | 6 | 3¼x4 | 25.4 | Pb | Str | P | Aut | Br-L | U | 4 | Sal | Sp | 34.49 | 4 | Tr | 135 | 2900 | 20x5.50 | 32x6 |
| Rugby 615 | 1½ | 930 | Con | 6 | 3¼x4 | 25.4 | Pb | Str | P | Aut | Br-L | U | 4 | Sal | Sp | 34.49 | 4 | Tr | 135 | 3000 | 5.50x20 | 30x5D |
| Selden 7 C | 1 | 1098 | Con | 6 | 2⅞x4¾ | 19.84 | Pb | Zen | Vac | Aut | Br-L | U | 3 | Tim | Sp | — | 4 | D | 124 | 3600 | 30x5 | 30x5 |
| Selden 17 C | 1½ | 1500 | Con | 6 | 3⅜x4 | 27.3 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Tim | Sp | — | 4 | D | 142 | 3000 | 32x6 | 32x6 |
| Selden 317 C | 1½ | 1610 | Con | 6 | 3⅜x4⅝ | 27.34 | Pb | Str | Vac | Aut | Br-L | U | 4 | Tim | Sp | — | 4 | D | 142 | 3900 | 32x6 | 32x6 |
| Selden 37 C | 2 | 1935 | Con | 6 | 3⅜x4⅝ | 27.34 | Pb | Str | Vac | Aut | Br-L | U | 4 | Tim | Sp | — | 4 | D | 151 | 4800 | 32x6 | 32x6D |
| Selden 39 C | 2½ | 2920 | Con | 6 | 4 x4⅛ | 38.4 | Pb | Str | Vac | Aut | Br-L | U | 4 | Tim | Sp | — | 4 | D | 164 | 5800 | 32x6 | 32x6D |
| Selden 47 C B | 3½ | 3785 | Con | 6 | 4 x4½ | 38.4 | Pb | Str | Vac | Aut | Br-L | U | 4 | Tim | Sp | — | 4 | D | 171 | 7200 | 34x7 | 34x7D |
| Selden 47 C D | 4 | 4435 | Con | 6 | 4 x4½ | 38.4 | Pb | Str | Vac | Aut | Br-L | U | 5 | Wis | 2R | — | 4 | D | 171 | 7600 | 36x8 | 36x8D |
| Selden 67 C | 5 | 4975 | Con | 6 | 4⅜x4¾ | 45.94 | Pb | Str | Vac | Aut | Br-L | C | 7 | Wis | 2R | — | 4 | D | 171 | 8700 | 36x8 | 36x8D |
| Selden 77 | 7 | 7365 | Con | 6 | 4¾x5¾ | 54.15 | Pb | Str | Vac | Aut | Br-L | C | 7 | Wis | 2R | — | 4 | D | 178 | 12000 | 36x7 | 40x7D |
| Service Series S 11 | 1 | 1600 | Bud H S 6 | 6 | 3⅜x4½ | 27.3 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Col | Sp | 25.5 | 4 | D | 142 | 3900 | 30x5 | 30x5 |
| Service Series 40 | 1½ | 2990 | Bud D S 6 | 6 | 3⅝x5 | 31.5 | Pb | Zen | Vac | Aut | Br-L | U | 4 | Tim | Wo | 34.8 | 4 | D | 168 | 4700 | 34x5 | D34x5 |
| Service Series 60 | 2½ | 4580 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Ful | U | 5 | Tim | Wo | 63.0 | 4 | D | 175 | 7000 | 36x6 | 36x6 |
| Service Series 80 | 3½ | 5250 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Br-L | C | 7 | Tim | Wo | 98.2 | 4 | D | 175 | 8200 | S36x8 | S36x12 |
| Service Series 80 | 4 | 5330 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Br-L | C | 7 | Tim | Wo | 98.2 | 4 | D | 175 | 8400 | S36x6 | S36x14 |
| Service Series 100 | 5 | 5830 | Bud B A 6 | 6 | 4⅛x5⅛ | 40.8 | Pb | Zen | Vac | Aut | Br-L | C | 7 | Tim | Wo | 95.0 | 4 | D | 175 | 9600 | S36x6 | S40x14 |
| Stewart 30 | 1 | 695 | Lyc AFE | 4 | 3¾x4½ | 22.5 | Pb | Str | Vac | DR | W-G | U | 4 | Sal | Sp | 35.1 | 4 | D | 130 | 2905 | 6.50x20 | 6.50x20 |
| Stewart 30 X | 1 | 795 | Lyc WRG | 6 | 2⅞x4¾ | 19.8 | Pb | Str | Vac | DR | W-G | U | 4 | Sal | Sp | 35.1 | 4 | D | 130 | 2965 | 6.50x20 | 6.50x20 |
| Stewart 40 | 1½ | 895 | Lyc AFE | 4 | 3¾x4½ | 22.5 | P | Str | Vac | DR | W-G | U | 4 | Cla | Sp | 35.1 | 4 | D | 130 | 3215 | 6.50x20 | 6.50x20D |
| Stewart 34 X | 1½ | 1195 | Lyc 4 SL | 6 | 3¼x4½ | 25.3 | Pb | Str | Vac | DR | W-G | U | 4 | Cla | Sp | 35.1 | 4 | D | 145 | 3526 | 6.50x20 | 6.50x20 |
| Stewart 28 X | 1¾ | 1495 | Lyc 4 SL | 6 | 3¼x4½ | 25.3 | Pb | Str | Vac | DR | Ful | U | 4 | Cla | Sp | 44.1 | 4 | D | 136 | 3840 | 6.50x20 | 6.50x20 |
| Stewart 29XS | 2 | 1695 | Lyc ASA | 6 | 3⅜x4½ | 25.3 | Pb | Str | P | DR | Ful | U | 4 | Cla | Sp | 44.1 | 4 | D | 145 | 4188 | 32x6 | 32x6D |
| Stewart 26 XW | 2 | 2290 | Lyc TF | 6 | 3⅝x5 | 31.5 | Pw | Str | Vac | DR | Ful | U | 4 | Tim | Wo | 48.1 | 4 | D | 165 | 5095 | 32x6 | 32x6D |
| *Stewart 18 X | 2½ | 2690 | Lyc TF | 6 | 3⅝x5 | 31.5 | Pw | Str | Vac | DR | Ful | U | 4 | Tim | Wo | 48.1 | 4 | D | 165 | 5788 | 32x6 | 32x6D |
| Stewart 32 X | 2½ | 1990 | Lyc ASA | 6 | 3⅜x4½ | 31.54 | Pw | Str | Vac | DR | Ful | U | 4 | Cla | Sp | 46.1 | 4 | D | 165 | 5100 | 32x6 | 32x6D |
| Stewart 33 X | 3 | 3290 | Lyc TS | 6 | 3⅞x5 | 36.2 | Pw | Str | Vac | DR | Ful | U | 4 | Tim | Wo | 105.1 | 4 | D | 165 | 6450 | 34x7 | 34x7D |
| Stewart 19 X | 3½ | 3690 | Lyc TS | 6 | 3⅞x5 | 36.2 | Pw | Str | Vac | DR | Ful | C | 12 | Tim | Wo | 105.1 | 4 | D | 165 | 6990 | 36x5 | 36x10 |
| Stewart 31 X | 5 | 4990 | Wak 6 RSL | 6 | 4⅜x5⅛ | 45.9 | Pw | Str | Vac | DR | Ful | C | 8 | Tim | Wo | 82.1 | 4 | D | 165 | 8400 | 36x6S | 36x6SD |
| Stewart 27 X | 6-7 | 5700 | Wak 6 RSL | 6 | 4⅜x5⅛ | 45.99 | Pw | Str | Vac | DR | Ful | U | 8 | Tim | Wo | 93.81 | 4 | D | 165 | 9927 | 36x7 | 40x7D |
| Studebaker GN-P | ¾ | 845 | Own | 6 | 3¾x4¼ | 27.3 | Pb | Str | P | DR | Own | U | 3 | Own | Sp | 15.15 | 4 | ‡4 | 115 | 2465 | 6.00x19 | 6.00x10 |
| Studebaker GN-S | 1 | 1045 | Own | 6 | 3¾x4¼ | 27.3 | Pb | Str | P | DR | Own | U | 3 | Own | Sp | 13.8 | 4 | D | 130 | 2990 | 6.00x20 | 30x5 |
| Studebaker GK-N | 1 | 1095 | Own | 6 | 3¾x4¼ | 27.3 | Pb | Str | P | DR | Own | U | 3 | Own | Sp | 13.8 | 4 | D | 146 | 3000 | 30x5 | 30x5 |
| Studebaker S-20 | 1½ | 695 | Own | 6 | 3¼x4⅛ | 25.4 | Pb | Str | P | DR | W-G | U | 4 | Tim | Sp | 36.2 | 4 | 4 | 130 | 3000 | 6x20 | 32x6 |
| Studebaker S-30 | 1½ | 775 | Own | 6 | 3¼x4⅛ | 25.4 | Pb | Str | P | DR | W-G | U | 4 | Tim | Sp | 36.2 | 4 | 4 | 160 | | 6x20 | 32x6 |
| Studebaker S-50 | 2 | 895 | Own | 6 | 3¼x4⅛ | 25.4 | Pb | Str | P | DR | W-G | U | 4 | Tim | Sp | 37.4 | 4 | 4 | 148 | | 6.50x20 | 6.50x20D |
| Studebaker S-60 | 2 | 945 | Own | 6 | 3¼x4⅛ | 25.4 | Pb | Str | P | DR | W-G | U | 4 | Tim | Sp | 37.4 | 4 | 4 | 160 | | 6.50x20 | 6.50x20D |
| Studebaker GN-N | *4000 | 1245 | Own | 6 | 3⅜x4¼ | 27.3 | Pb | Str | P | DR | Cla | U | 4 | Cla | Sp | 33.5 | 4 | D | 146 | 3265 | 30x5 | 32x6 |
| Studebaker 77 | *12500 | 2895 | Own | 8 | 3½x4⅜ | 39.2 | Pb | Str | P | DR | Ful | U | 4 | Eat | Sp | 24.6 | 4V | D | 158 | 5030 | 7.00x20 | 7.00x20D |
| Studebaker 88 | *12500 | 3295 | Own | 8 | 3½x4⅜ | 39.2 | Pb | Str | P | DR | Ful | U | 4 | Eat | Sp | 24.6 | 4V | D | 184 | 5200 | 7.50x20 | 7.50x20D |
| Studebaker 99 | *14000 | 3795 | Own | 8 | 3½x4⅜ | 39.2 | Pb | Str | P | DR | Ful | U | 4 | Eat | Sp | 24.6 | 4V | D | 184 | 5680 | 7.50x20 | 7.50x20D |
| Whippet 96 A | ½ | 360 | Own 96 A | 4 | 3⅛x4⅜ | 15.6 | Pb | Til | Vac | Aut | Own | U | 3 | Own | Sp | 14.74 | 4 | R | 103¼ | 1691 | 4.75x19 | 4.75x19 |
| White 15 B | | 1545 | Own GKA | 4 | 3¾x5⅛ | 22.5 | CS | Zen | Vac | L-N | Own | C | 4 | Own | Sp | 18.6 | R | R | 133½ | 3402 | 30x5 | 30x5 |
| White 60 | | 1850 | Own 2 A | 6 | 3½x4½ | 29.4 | Pw | Zen | Vac | DR | Own | U | 3 | Own | Sp | 17.9 | 4 | D | 138 | 3739 | 30x5 | 30x5 |
| White 57 | | 2725 | Own GRC | 4 | 4 x5¾ | 25.6 | Pw | Zen | Vac | L-N | Own | U | 4 | Own | Sp | 19.3 | R | R | 146 | 3935 | 32x6 | 32x6 |
| White 29 A | | 2125 | Own GKA | 4 | 3¾x5¼ | 22.5 | CS | Zen | Vac | L-N | Own | C | 4 | Own | 2R | 32.1 | R | R | 145½ | 4572 | 34x5 | 34x5D |
| White 61 | | 2450 | Own 4 A | 6 | 3¾x4½ | 33.75 | Pw | Zen | Vac | DR | Own | U | 4 | Own | Sp | 23.4 | 4 | D | 148 | 4789 | 30x5 | 30x5D |
| White 56 | | 3125 | Own GRC | 4 | 4 x5¾ | 25.6 | Pw | Zen | Vac | Mag | Own | U | 4 | Own | Sp | 26.2 | R | D | 165 | 5276 | 36x4S | 36x7S |
| White 51 A | | 3750 | Own GRB | 4 | 4¼x5¾ | 28.9 | Pw | Zen | Vac | Mag | Own | U | 4 | Own | Sp | 35.6 | R | D | 170 | 6438 | 36x5S | 36x9S |
| White 58 | | 4400 | Own GRB | 4 | 4¼x5¾ | 28.9 | Pw | Zen | Vac | Mag | Own | U | 4 | Own | IG | 49.7 | D | R | 170 | 6438 | 36x5S | 36x9S |
| White 55 | | 4650 | Own GRB | 4 | 4¼x5¾ | 28.9 | Pw | Zen | Vac | Mag | Own | U | 4 | Own | IG | 66.1 | D | R | 174 | 8737 | 36x5S | 40x5SD |
| White 52 T | | 4700 | Own GRB | 4 | 4¼x5¾ | 28.9 | Pw | Zen | Vac | Mag | Own | U | 4 | Own | IG | 76.5 | D | R | 129½ | 8461 | 36x5S | 40x5SD |
| White 52 | | 5100 | Own GRB | 4 | 4¼x5¾ | 28.9 | Pw | Zen | Vac | Mag | Own | U | 5 | Own | IG | 92.3 | D | R | 174 | 9409 | 36x6S | 40x12S |
| White 59 A | | 6000 | Own 3 A | 6 | 4 x5¼ | 38.4 | Pw | Zen | P | DR | Own | U | 4 | Own | Sp | 66.5 | D | R | 155 | 9775 | 40x8 | 40x14S |
| White 63 | | 5000 | Own 3 A | 6 | 4 x5¼ | 38.4 | Pw | Zen | P | DR | Own | U | 4 | Own | Sp | 41.4 | 4 | D | 168 | 8350 | 34x7P | 34x7DP |
| White 61 | | 6300 | Own 1 A | 6 | 4⅜x5¾ | 45.94 | Pw | Zen | P | LN | Own | U | 4 | Own | 2R | 46.8 | 4 | D | 180 | 9154 | 36x8P | 36x8DP |
| Willys Six 98 B | ½ | 525 | Own 98 B | 6 | 3¼x3⅞ | 25.35 | Pb | Til | Vac | Aut | Own | U | 3 | Own | Sp | 14.28 | 4 | B | 110 | 1903 | 5.50x19 | 5.00x19 |
| Willys Six C-101 | 1½ | 695 | Own 98 B | 6 | 3¼x3⅞ | 25.35 | Pb | Til | Vac | Aut | Own | U | 4 | Cla | Sp | 36.12 | 4 | B | 131 | 2675 | 5.50x20 | 30x5 |
| Willys-Knight T-103 | 1½ | 825 | Own KGT | 6 | 2⅞x4⅝ | 20.7 | Pb | Til | Vac | Aut | Cov | U | 4 | Cla | Sp | 42.33 | 4 | B | 131 | 2808 | 5.50x20 | 30x5 |

## GENERAL NOTATIONS

***†‡REFERENCE MARKS** apply to individual lines only and explanations are given under the subdivision for each company in the "SPECIAL NOTATIONS."

**CAPACITIES** given in this table are in tons or fractions of tons. *Shows maximum allowable gross weight in pounds.

**WHEEL BASES** given are standard, but optional wheel bases are available in many cases.

**ENGINE**—Bud, Buds; Con, Continental; Her, Hercules; Kgt, Knight; Lyc, Lycoming; Wak, Waukesha; Wis, Wisconsin; Hall, American Car & Foundry.

**LUBRICATION**—Pb, pressure lubrication to main and connecting rod bearings; Pw, full pressure lubrication to all main, connecting rod and camshaft bearings, including wrist pins; SC, circulating splash; Sp, splash.

**CARBURETOR**—Car, Carter; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; DC, Detroit Lubricator; Til, Tillotson; Zen, Zenith-Detroit.

**FUEL FEED**—Gra, Gravity; Vac, Vacuum tank; P, Fuel pump.

**IGNITION**—AB, American-Bosch; Aut, Electric Auto-Lite; Eis, Eisemann; L-N, Lorce-Neville; N-E, North East; RB, Robert Bosch; DR, Delco-Remy; Mag, Magneto

**TRANSMISSION**—Br, L, Brown-Lipe; Cov, Covert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G, Warner Gear; Cotta, Cotta Gear Company.

**LOCATION**—C, center, amid; U, in unit with engine; J, on jackshaft.

**REAR AXLE**—Cla, Clark Equipment; Col, Columbia; Eat, Eaton; Sal, Salisbury; Tim, Timken; Wis, Wisconsin.

**FINAL DRIVE**—IG, Internal gear; St, Straight bevel; Sp, Spiral bevel; Wo, Worm; 2R, Double reduction; Ch, Chain; R, Relay drive.

**BRAKES**—J, Jackshaft; R, Rear wheels; D, Drive shaft; 4, four-wheel; Tr, Transmission; V, Vacuum booster; W, Westinghouse air brake; B, Both front and rear wheels.

**TIRES**—B, Balloon; D, Dual; S, Solid; P, Pneumatic.

## SPECIAL NOTATIONS

### AMERICAN-LA FRANCE

*Chief model also available as 2½-ton model, 34x7 tire, dual rear, weight 6,400. Price $3,900

Chieftain model also available as Dump Truck, 160-inch wheel base.

Balloon tires optional on Chief, Chieftain and Big Chief models.

### AUSTIN

*Price includes body.

### AUTOCAR

*Engines in these models are located under the driver's seat.

### DAY-ELDER

Models CF and HF also available in 136-inch wheel base.

Model JF also available in the following wheel bases; 165, 189 and 204.

Model KF also available in 202-inch wheel base and tractor 149.

### DURANT LINE

*Price includes panel body.

### DODGE

Dodge Model F 36 A to D is available on 165-inch wheel base. Model F 41 A to E is available on 165-inch wheel base. Model F 61 A to E is available on 170-inch wheel base. Model F 62 A to E is available on 195-inch wheel base.

### F. W. D.

*Indicates six-wheel model. Special power take-off transmission, which provides 3 power take-offs which may be operated in any transmission speed, optional on all models.

*Foot brake on X6 is a Lockheed type, operating on all six wheels.

### FEDERAL

*Six wheelers.

### GRAMM

*Models L, C, D and E are furnished in three wheel base lengths—others on request.

*Models GY and GYB also available in 190-inch wheel base.

*Models HY and HYB also available in 210-inch wheel base.

Tire sizes and electrical equipment optional, depending upon type of service—coach or van.

*Model O series, large engine, pneumatic tires, special wheel bases optional at extra cost.

*Model T series, large engine, pneumatic tires, special wheel bases and 8 speed transmission optional at extra cost.

### GENERAL MOTORS TRUCK LINE

*Capacity indicated for each chassis is the reccmmended gross weight without exceeding rated capacity of tires. The tire size does not affect the straight rating for which chassis is guaranteed and each model is designed to operate satisfactorily under average conditions with loads giving a total gross weight (chassis, body, equipment and payload) equal to straight rating given below. The additional standard wheel base lengths, the number of additional tire types (tire combinations—each type carrying a recommended gross weight) and the ton range on a nominal payload basis for each model is given below.

| Model | Straight Rating | Additional Wh. bases, ins. | | | Addit'l Tire Types | Payl'd Range |
|---|---|---|---|---|---|---|
| T-11 | 3800 | None | | | None | ½ |
| T-15 | 5400 | 141 | | | 2 | ¾ |
| T-17 | 6500 | 141 | | | 6 | ¾-1¼ |
| T-19 | 8500 | 141 | | 152 | 16 | 1-2 |
| T-25 | 8500 | 141 | | 152 | 11 | 1-1½ |
| T-30 | 11000 | 152 | | 164 | 12 | 1½-2½ |
| T-42 | 14000 | 152 | 164 | 181 | 10 | 2-3½ |
| T-44 | 15000 | 152 | 164 | 181 | 10 | 2-4 |
| T-60 | 18500 | 166¾ | 184½ | 200¼ | 16 | 2½-4½ |
| T-82 | 22000 | 167½ | 185¼ | 201 | 10 | 3-6 |
| T-90 | 28000 | 201 | | 220 | 5 | 5-7½ |

Optional rear axle ratios are available for all models.

### MACK LINE

Other wheel bases furnished on all truck models.

On 6-wheel jobs, 4 rear wheels driven by chains, foot brake on 4 rear wheels.

HYP—Hypoid drive, single reduction.

††Made also in tractor models.

### REO LINE

Model F A also available in 129-inch wheel base.

### RUGBY

F—Chassis weight includes body.

### STEWART LINE

Model 30 and 30X can also be supplied in 130 and 140-inch wheel base.

Model 40 can also be supplied in 140 and 160-inch wheel base.

*Model 34X can be supplied in 145, 160 and 176-inch wheel base.

Model 28X can be supplied in 145, 160 and 176-inch wheel base.

Model 29XS can be supplied in 160 and 176-inch wheel base.

*Model 26XW can be supplied in 148, 176 and 190-inch wheel base.

*Models 18X, 32X and 33X can be supplied in 148, 190 and 220-inch wheel base.

*Models 19X, 31X and 27X can be supplied in 148 172, 190, 220 and 235-inch wheel base.

As optional equipment models 18X, 19X, 33X, 31X and 27X can be supplied with Timken dual reduction rear axle.

### STUDEBAKER LINE

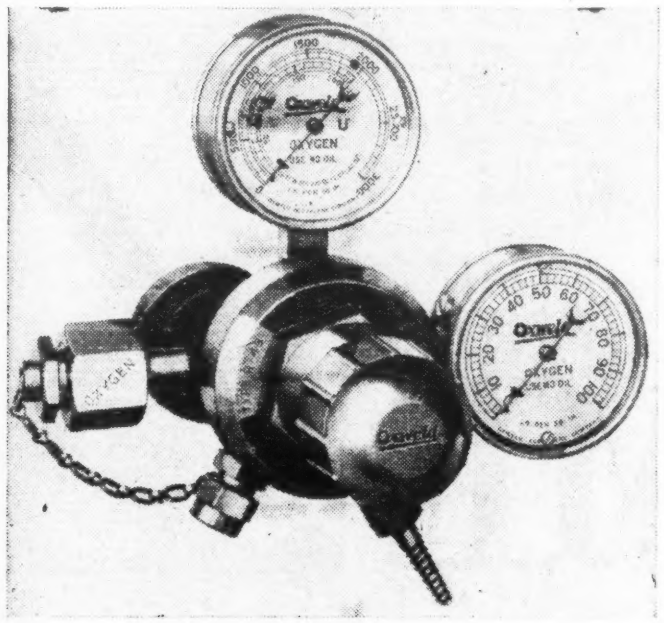
*Capacity model GN-N is 4,000 pounds for body, cab, driver and payload.

Maximum gross load, chassis, body and payload for Models 77 and 88 is 12,500 lbs. and for Model 99 is 14,000 lbs.

‡Hand brake same as foot brake, standard. Hand brake on drive shaft, special equipment.

# Production--Engineering--Factory

## Oxweld Introduces New Two-Stage Regulator



Oxweld Type R-43 Oxygen Welding Regulator

The Oxweld Type R-43 Oxygen Welding Regulator, recently introduced by Oxweld Acetylene Company, 30 East 42d St., New York, is designed to eliminate a fluctuation of the line pressure by means of a system of two-stage pressure reduction. This two-stage reduction is accomplished through two separate and independent sets of diaphragms, valves and springs. The full cylinder pressure of 2,000 pounds enters the regulator through a stem-type valve and is controlled by the first stage diaphragm. In this stage the pressure is reduced to less than 250 pounds per square inch. This pressure will be constant for any one regulator, but varies somewhat with different regulators. The pressure here is non-adjustable.

The oxygen then passes from this first reduction assembly to a second stem-type valve and diaphragm assembly where the pressure is reduced to the working pressure desired by the operator. This pressure is regulated by the operator by means of the adjusting screw, and any operating pressure may be obtained without fluctuation.

Instead of the usual handle-type pressure adjusting screw found on all other Oxweld regulators, there has been substituted a screw with a ribbed cap. This change in external design improves the appearance and also removes the possibility of accidental breakage. This new type adjusting screw is of smaller diameter than the body of the regulator itself and facilitates packing for transportation from one job to another.

## A. P. I. District Meeting To Be in Galveston

**Dallas, Tex.,** Sept. 4.—Question-box discussions and prepared papers make up the program of the fall meeting of the Southwestern District, American Petroleum Institute Division of Production, to be held today and tomorrow in the Buccaneer Hotel at Galveston, Tex. The complete program, as announced by Carl A. Young, division secretary, follows:

**First Day—Today**

"Results of Survey of Oil Field Equipment for Conference to A. P. I. Specifications," by W. C. Shutts, Humble Oil and Refining Company, Houston, Tex.

"Equipment and Methods for Preventing Blowouts in Drilling." Group paper by Southwestern district committee on drilling practice. C. W. Alcorn, chairman.

"The Advantages of Insulation of Oil Field Boilers," by W. H. Meier, Atlantic Oil Producing Company, Dallas, Tex.

"Proper Installation of Gas Separators to Obtain Maximum Efficient Separation of Oil and Gas." The speaker is to be selected. This paper will discuss the effect of the installation of separators upon the conservation of gasoline vapors and of the oil in storage; also influence on gasoline plants, oil storage equipment and actual flowing of the wells.

"Further Development of Cementing Practice in the Golf Coast Area, Continuation of Studies by Messrs. Manning and Doherty," by W. T. Doherty and M. Manning, Humble Oil and Refining Company, Houston, Tex.

"Results Obtained in Yates Field by Tubing Flowing Wells," by Harvey Hardison, the California Company, Midland, Tex.

"Report of Committee on Designation of Flow Bean Sizes," by W. W. Scott, chairman drilling practice committee.

**Second Day—Tomorrow, Morning Session**

"Description of Deep-Well Drilling in the Big Lake Oil Field." The speaker is to be selected.

"Question Box." Discussions will be invited on any particular problem that is presented from the floor. Everyone is privileged to present problems on which they desire information or discussion. To facilitate the handling of the problem, it is requested that they be submitted to E. S. Durward, Shell Petroleum Corporation, Dallas Athletic Club Building, Dallas, Tex., in writing, prior to the meeting.

## Flow From Oil Wells Stimulated by Gas Injections

Injection of gas or air into oil sands artificially supplements the energy necessary to move the oil through the sands to the wells. Since it is seldom possible in field practice to produce oil with production efficiencies that even approach 100 per cent., gas injection compensates to a degree for some of the harmful effects of producing oil with high recovery gas-oil ratios.

The practice of stimulating production from oil wells and increasing the ultimate recovery of oil from reservoir sands by forcing a gaseous medium through the oil sand was started in southeastern Ohio in 1911. The original details of the process were worked out by Orton C. Dunn and Harvey E. Smith, and credit is due them for demonstrating the practicability of the process and for bringing it into successful use.

At first, air was injected into the reservoir sands to force oil into surrounding wells, but the trend of recent practice is to reintroduce natural gas into the partly depleted sands. It is only where natural gas is scarce that air is used. There are certain advantages in the use of natural gas as a repressuring medium. Natural gas, because of its solubility in petroleum, reduces the viscosity of the oil in the sands. Less energy is required to drive a low-viscosity oil through sand than is required to force an oil of high viscosity through the same sand when other conditions are equal.

### A. S. M. E. MEETINGS

**Sept. 22-24—Fourth National Machine Shop Practice Meeting, Chicago, Ill., during A. S. S. T. Exposition.**

**Sept. 24-26—Fourth National Iron and Steel Meeting, Chicago, Ill., during A. S. S. T. Exposition.**

**Oct. 6-8—National Petroleum Meeting, Tulsa, Okla., during International Petroleum Exposition.**

**Oct. 13-15—French Lick Meeting, French Lick Springs Hotel, French Lick, Ind.**

**Oct. 16-17 — Fifth National Wood Industries Meeting, New York city.**

**Oct. 22—Southern Textile Meeting, Greenville, S. C., during Southern Textile Machinery Exposition.**

**Dec. 1-5—Fifty-first Annual Meeting, Chicago, Ill., during Midwest Power Exposition.**

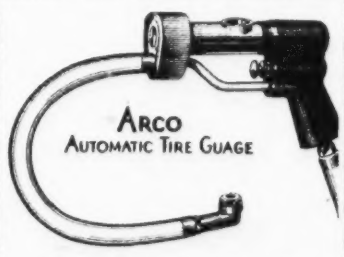
## Acme Engineering Makes Automatic Tire Gauge

Acme Engineering Company, Oakland, Cal., has developed a new automatic tire gauge which, it is claimed, speeds up the work of inflating tires and at the same time gives an accurate indication of the inflation pressure in the tires.

The Arco automatic tire gauge, as it is known, is constructed of aluminum alloy in a convenient shape to handle. It has a hard rubber pistol grip. Brass fittings are used throughout.

Actual size of pressure recording unit

The pressure recording unit is located on the top of the pistol-like barrel. The pressure readings are visible through a ⅝-inch unbreakable glass window.

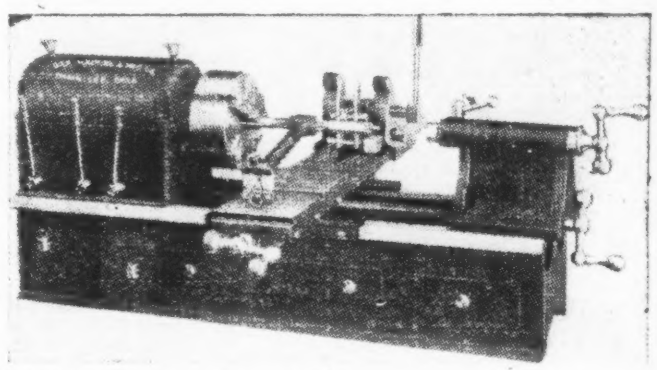



Arco Automatic Tire Gauge

A swivel chuck allows the gauge to be read regardless of the location of the tire valve stem.

The overall length is 20 inches. The shipping weight is two pounds. It is priced at $12.50.

## Orr Manufacturing Co. Introduces 2 New Machines



Orr casting machine, with rod in place ready for pouring

Orr's Machine and Manufacturing Company, Okmulgee, Okla., are putting on the market a new combination connecting rod lathe and reamer drive and babbitt casting equipment.

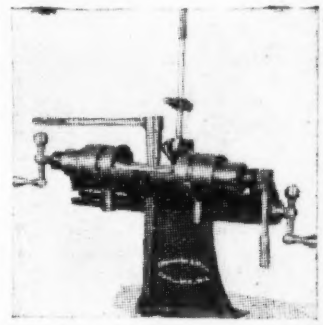
**Rebabbitting**

Rebabbitting of main and connecting-rod bearings is done under pressure with the Orr equipment. The babbitt is poured into a funnel which directs the metal to the center of the bearing. The metal flows to the ends of the bearing and the dross and burnt alloys rise to the top. After the bearing has been allowed to stand for a few seconds the funnel is rotated a half turn which shears off the babbitt flush with the mandrel. The funnel is then removed; the heads are backed off and the ejector brought down to force the connecting rods from the mandrel.

It is claimed that the method of pouring the metal results in more uniform cooling, equalizes the shrinkage and minimizes strains in the poured metal.

Advantages claimed for this equipment are that pressure pouring leaves the babbitt free from pits and that there are no lugs to dress off. Another advantage is that the mandrel with the heads can be lifted from between centers and set on a cylinder block or any bearing to be babbitted in halves.

Five mandrels are furnished with thirty adaptors. The equipment weighs 150 pounds, uncrated. The price complete is $250.



Orr lathe used as reamer drive

The combination lathe and reamer drive is a small geared head lathe. It is driven by a motor mounted under the geared head. The drive is direct through a stuffing box.

Eight boring mandrels, ground and set to the standard sizes of connecting rods, are furnished with the machine. Each mandrel is fitted with two cutters, one for roughing and one for finishing.

The chuck which holds the big end of the connecting rod is self-centering. The piston pin end of the connecting rod is held in the "V" heads by two adjustable equalizing fingers, beveled to a sharp edge. These catch the sides of the connecting rod piston pin boss, thereby pressing the rod back tight against the piston pin, which assures alignment of the rod and piston pin.

The uncrated weight is 340 pounds. The price complete is $300.

## Research Develops American Industry

The firing line of American industry is being shifted rapidly into the research laboratory, according to E. J. Kulas, president of the Midland Steel Products Company, writing in the current issue of Nation's Business.

"Research is developing into industry's best salesman because of the great demand for new and better products, and for improved methods of manufacture," says Kulas. "The result is that the laboratory is no longer merely an aid to competition, it is competition. This will become increasingly evident in the years ahead, when every important manufacturing enterprise will find it expedient to have a research laboratory as an adjunct to sales.

"The chief aim of the modern laboratory is to study the problems of customers and to seek to give them a better and more efficient product. Competition reduces itself to service to the buyer."

Kulas describes the work being accomplished by the research division at Cleveland of the Midland Steel Products Company, manufacturer of automobile frames, brakes and other parts. The company has developed improvements which have meant savings to automobile makers aggregating many hundreds of thousands of dollars annually, he says.

"As a result of this work our engineers are frequently consulted by automobile companies on problems in which we specialize," Kulas writes. "Competition in the laboratory of the maker of automobile parts begins at a point beyond which it is impractical or impossible for the motor car maker to go. It is competition not only to improve the performance of the final product, but also definitely a competition for lower costs, since the improved design is generally a step toward simplicity and therefore lends itself to manufacturing economies."

## BUS BUILDING COMPANY BEING FORMED IN ALBANY

**Albany, N. Y.,** Sept. 4.—O. F. Warhus, who was formerly connected with the Versaire Company before its removal to Cincinnati, is interested in a project to establish and finance a plant for the manufacture of motor buses in Albany.

Leading Albanians have been called on to give financial co-operation in the proposed new industry and indications point to a new company being formed in the immediate future.

The Versaire Company, at the time it left Abany, was doing a business in excess of $1,000,000 annually with prospects of augmented patronage.

### LEASES MORE SPACE

**Chattanooga, Tenn.,** Sept. 4.—The Newton Chevrolet Company has leased the buildings at 311-315 Broad St. and at 304-308 Chestnut St. to consolidate the used car and general sales and repair departments.

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